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East Europe Report

ECONOMIC AND INDUSTRIAL AFFAIRS
No. 1997



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EAST EUROPE REPORT ECONOMIC AND INDUSTRIAL AFFAIRS

No. 1997

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GOLD DEPOSITS IN CSSR-HUNGARY REEVALUATED

Prague HOSPODARSKE NOVINY in Czech 26 Feb 80 p 6

[Article by Engr Alexander Preus of the Federal Ministry of Metallurgy and Heavy Engineering: "Gold-Bearing Sands"]

[Text] Gold, real gold or Au, is of importance not only in the jewelry trade and in monetary affairs, as a standard of value. Because of its corrosion-resistant properties, it is also an important industrial raw material, particularly in conjunction with the development of the output of electronic components and of electrotechnical products in general. A thin layer of gold is used on connectors, switches and relays that must maintain low contact resistance over a long period of time, and its importance has not declined even with the substitution of contactless semiconductor switches (diodes, transistors, and thyristors). Semiconductor technology, particularly microelectronics, also needs gold wire for leads from the circuits on silicon chips to connectors of less-noble metals, as well as gold plating for other electronic applications.

The world price of gold was 1290 dollars per kilogram in 1970. In December 1979 its price was already 13,000 dollars (cf "Enormous Fluctuations," HOSPODARSKE NOVINY, No 5, 1980, p 10). This makes more attractive the plans to re-evaluate the domestic deposits whose mining was discontinued fairly recently (e.g., Zlate Hory pod Blanikem, and Radlik near historical Jilove), and to exploit also the so-called "nonconventional" sources of gold. One such possible source is the Danube's alluvia from primary deposits in the Alps.

Alluvial Gold

Views regarding the feasibility of recovering the Danube's alluvial gold developed in phases. The first written reports on the placer mining of Danubian gold are from the 18th century. But it is very likely that gold was mined much earlier, by individuals on a small scale, using primitive methods.

This phase ended with an extensive survey conducted on the territory of Hungary in 1932-1934. Engr Dezso Panto, a senior commissioner of mines,

directed and evaluated this survey. In this entire phase, interest focused only on the granular and flake gold that can be recovered from placer concentrates by amalgamation (dissolution in mercury). The experts who participated in this survey probably did not know that Danubian alluvia may contain gold also in other forms.

Elemer Szadecky-Kardoss marks the beginning of a new phase of the views regarding the recovery of gold from the Danube. He was the first to call attention, in 1938, to the fact that the analytical procedure used to assay gold in the 1932-1934 survey was unsuitable, and to the feasibility of using cyanidation to extract gold. It appears that not enough experience with this technology was available at that time. The fact remains that the ideas advanced by Elemer Szadecky-Kardoss were not pursued further. The technical management of the Aurea Mining Company was acquainted from the very beginning with the results of the work done by D. Panto and E. Szadecky-Kardoss, but the extraction technology employed by this company in placer mining on an industrial scale did not represent any basic improvement over the methods employed by D. Panto. The technology was based on concentrating the placer material by gravity, and on amalgamating the loose alluvial gold. Extraction, by cyanidation, of the residual gold from the tailings after amalgamation was considered, but this proposal was never realized as an additional processing stage.

Gold-Bearing Biology

Since the Aurea Company's bankruptcy, however, science and technology have advanced further on many questions concerning gold deposits. A series of important discoveries have been made, and further progress has been achieved in extraction methods. Many promising theories have been advanced, some of them fully proven, while others serve as working hypotheses for the time For example, the theory of A. V. Vornin and I. S. Godberg (1972) about the electrochemical processes that cause gold to migrate in goldbearing alluvia. Furthermore, the discovery of the effect that bacteria and other organisms have on the dissolution and precipitation of gold. Closely linked to this is also the assumption that gold may be deposited as a very thin layer on the surface of the grains of other minerals, respectively that it may exist as very finely dispersed colloidal gold, or that it may be complexly bound or absobed in, or adsorbed to, certain inorganic and organic substances. Due attention and further study will have to be devoted to distinguishing these various forms of dispersed gold, which will be an essential starting point for solving the question of the industrial recovery of such gold. These discoveries and working hypotheses must be borne in mind in any future approach to solving the question of recovering gold from the Danube on an industrial scale.

So far as recovery methods are concerned, new types of equipment have been designed that are based on known principles but are more effective and permit the mining also of deposits that up to now have not been workable. (New types of equipment for gravitational recovery such as, for example, new types of jigs, spiral sqparators, cone separators, new types of sluices, etc.)

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The industrially developed countries are now solving the task of using the method of biological leaching to extract gold from deposits whose gold content is low. Even though this method is not yet sufficiently developed to permit full-scale industrial application, it is indisputable that the discovered processes of the dissolution and precipitation of gold by microorganisms play an important role in nature. Therefore research into this new and promising method must be pursued intensively, because there is hope that also in the case of gold we will be able to control the action of microproganisms in the desired manner, similarly as this has already been achieved in the case of certain industrially essential elements, for example, copper and uranium.

Re-Evaluation

The results of the extensive surveys of Danubian gold on the territory of Hungary in 1932-1934 are not absolutely valid, because the drilling was done with unsuitable equipment, which necessarily depleted the obtained samples. Furthermore, the samples were not analyzed properly, and only the recoverable gold was assayed. The rest of the gold, for which the methods of recovery and extraction were inadequate, remained undetermined. As a result of the unsuitable methods of drilling and analysis, the data of the surveys conducted in Hungary at one time are underestimated.

The Aurea Company's attempts at placer mining failed because the workers who designed the equipment for the placer mine were inexperienced. Even though this finding is never stated so clearly in the documents that have been preserved, it follows from the opinion of the experts who at that time had opportunity to evaluate the placer mine. The equipment was repeatedly redesigned and modified over a period of nearly two years, but in practice it never functioned properly.

There are many data on the occurrence of gold in Danubian alluvia at many locations. But data of a qualitative and quantitative nature are entirely inadequate or unreliable. So far as the metal content is concerned, it is indisputable that the data to date on deposits in the Czechoslovak Socialist Republic are distorted, due to losses in taking the samples and in assaying the gold contained in them. Hence also the other parameters are underestimated, namely the area and thickness of the gold-bearing sections of the Danubian alluvia. These problems were not resolved even in the survey that the Geological Prospecting Enterprise of Spisska Nova Ves conducted in 1965 through 1970.

The technology that could offer optimal recovery of gold from Danubian alluvia has not been tested so far in our country. The methods used at similar foreign deposits containing a substantial proportion of their gold in forms from which recovery is difficult have not been tested (for example, concentration by gravity in jigs and subsequent cyanidation, or other suitable methods). This is a task of key importance, and on its solution will

depend the feasibilty of reliably determining the still lacking principal parameters of the deposits, i.e., the magnitude of the reserves in the individual sections, and their gold content.

Up to now we regarded as workable only surface layers a few centimeters thick, occurring in shallows and on the banks and containing gold and other heavy minerals. These were the deposits that were placer-mined by private individuals. If suitable drilling and analytical methods are used, a significantly higher metal content of the deposits will be determined, and also at greater depths in similarly favorable locations. Thereby the area and cube of the workable deposits will be significantly greater. It is probably indisputable that the Danubian alluvia east of Komarno are a significant potential source of gold.

River Practices Sorcery

After testing suitable equipment for prospecting and analytical work, it will be possible to begin verifying the gold content in the shallows dredged to keep the river navigable, and in the gravel removed for the construction of the Gabcikovo-Nagymaros hydraulic engineering project. If the gold content of the dredged alluvium is found to be sufficient to cover the cost of recovery, it will be possible to combine stream regulation with mining operations, which will reduce mining costs. We can expect that in this manner it will be feasible to mine gold also from alluvia whose gold content is less than 150 mg/cubic meter of gravel.

Since the richest gold-bearing sections of the Danube's alluvia undergo fairly rapid changes as a result of the constantly changing configuration of the river's banks and bed, it is not possible to explore deposits of this type with a lead time of several years, and then to transfer the results of exploration to planning and to the mining enterprise, in the same way as is now customary under our conditions in the case of larger deposits of mineral raw materials. If the feasibility of recovering gold from the Danube will be considered, in this specific case it will be expedient to begin mining immediately after the exploration of the deposits. We must likewise anticipate that data on the metal content of the individual promising sections will have to be obtained through pilot-plant recovery tests, which is the most reliable method in the case of deposits of this type.

INTERNATIONAL AFFAIRS

CEMA COUNTRIES' ENERGY CONSUMPTION EXAMINED

Budapest HETI VILAGGAZDASAG in Hungarian 15 Mar 80 pp 11-13

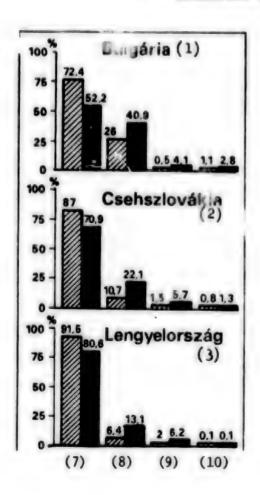
[Article: "Oil on Fire"]

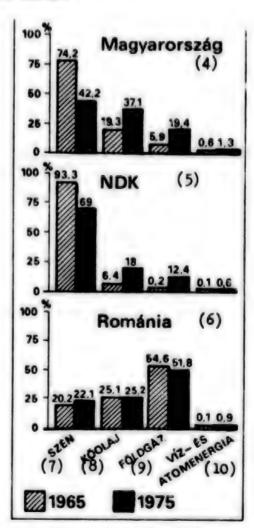
[Text] With the exception of the Soviet Union, the CEMA countries do not have sufficient energy sources to cover their needs. Since their industries are energy intensive they have to import a significant volume of energy sources. In recent years a change has been perceptible in the energy policies of the countries concerned—they are developing energy production using their own coal base, building atomic power plants, carrying out joint investments, and expanding their relations with the oil—producing developing countries.

Excepting the Soviet Union, the European CEMA countries are not independent in energy sources. Only Poland has rather significant energetic raw material supplies—it is the world's fourth largest coal producer—and the GDR, which has the leading position in the production of brown coal. In the remaining countries—with the exception of the CSSR—the coal supplies are not too great, and most of these consist of poorer quality lignite with lower calorific content.

Industrial development following the Second World War emphasized everywhere the energy-demanding branches--metallurgy, chemical industry, the electrification program and transportation consumed a tremendous amount of energy taken in the strict sense of the word. The Warsaw newspaper ZYCIE WARSZAWY, with reference to the estimates of Polish economists, reports that in Poland, for example, they use two to four times as much energy as the developed capitalist countries for one unit of production. Statistics of similar purport have also been prepared elsewhere—they have shown in the GDR, for example, that between 1968 and 1978 industrial energy consumption increased by 114.7 percent, including a 163.9 percent increase in the food industry and a 160.6 percent increase in the building industry; while, for example, the transportation branch which is carrying out increasingly greater tasks has succeeded in reducing its energy consumption by 70.3 percent.

Structure in Percent of Primary Energy Consumption in the CEMA Countries of Eastern Europe





Kev:

- 1. Bulgaria
- 2. CSSR
- 3. Poland
- 4. Hungary
- 5. GDR

- 6. Romania
- 7. Coal
- 8. Petroleum
- 9. Natural gas
- 10. Water and atomic energy

In the mid-1960's, oil--and soon thereafter natural gas--entered in socialist countries as well on the list of the most important energy sources, and it came and saw and conquered. The purchase price and the specific investment cost was low; it is easy to transport, store, and it could also be used by the chemical industry. A significant part of its career, however, is due to the fact that in the beginning it seemed there was inexhaustible supplies. The accompanying graph based on the statistics of the CEMA

countries reviews the primary energy source consumption of the countries concerned. (Primary energy sources are solid, liquid and gas thermal energy sources, and water and wind.)

Actually, the change was imperceptible only in Romania, since they went through this process earlier because of their domestic natural gas and petroleum resources. It is also evident from the table that as the hydrocarbons pushed into the forefront coal mining was similarly pressed into the background in a number of the CEMA countries. There is one exception hereto--Poland, where coal is at the same time an important export.

The turn to hydrocarbons was accompanied by their import increase. Here are only several examples: the CSSR, which bought only 6.1 million tons of petroleum in 1965, imported 18.5 million tons in 1978, and of this 17 million tons came from the Soviet Union. In 1965, Poland bought only 3.2 million tons of petroleum from abroad, but this year it imported 18 million tons, meeting 80 percent of its requirements from the Soviet Union. Romania, too, whose present petroleum production is close to 14 million tons imported 13 million tons in 1978 and, according to estimates, 16 million tons in 1979. Up to last year, Romania imported its extra needs chiefly from the OPEC countries; but in the fourth quarter of the past year—according to the Polish newspaper RYNKI ZAGRANICZNE—it purchased 350,000 tons from the Soviet Union, and according to the same source it will import about 1 million tons from there this year.

The European CEMA countries acquire a significant part of their oil, and their natural gas we should also add, supplies from the Soviet Union. In 1965, the USSR delivered 27 million tons of petroleum to the socialist countries, and in 1975 about 65 million tons of petroleum and 11.3 billion cubic meters of natural gas. In this period, the export of Soviet electric energy also increased significantly. For the 1976-1980 plan period the Soviet Union has undertaken to deliver to the socialist countries 374 million tons of petroleum, 90 billion cubic meters of natural gas and 67 billion kilowatts of electric energy. With this -counting in standard combustible units--in 1980 it will cover 25 percent of the energy requirements of the CEMA countries (as compared to 22 percent in 1975).

But the imports of the individual socialist countries differ significantly from one another: calculating on five-year plan data, Burgaria, for example, covers 70 percent of its energy requirements--calculated in standard combustible units; Romania 3.9 percent; Poland, which has rich coal reserves 12 percent; and for the CSSR, Hungary, and the GDR the percentage varies between 36-40 percent. (These data do not include direct electric energy deliveries.)

The long-range special energetic cooperation program approved by the CEMA countries in 1978 sets a somewhat different direction for the energy management of the CEMA countries and for the energetics development program. The special program calls primarily for discovery and gradual drawing into

Onsóg (1)	Barnaszén és lignit (millio tonna)	(millió jonna)	Koolaj (ezer jonna) (A)	Földgás (milliárd köbryéjer)
Bulgária(6)	-	25.5"	250	121
Csehszlovákia (/)	96,2	28,5	120	-
Lengyelopydo (8)		201	450	-
NDR (9)	256,5	-	200	-
Admiditio 1	32,7	7	13 500	27,2 6,5
Magyarország (11	22,7	3	2 000	0,3
* 1978. évi adat. ** A barnaszén és a Forrás: szénre és tö Landonban megjeler	ldaázra állami ter	vielentések, kőo		Economist,

Key:

1.	Country	8.	Poland
2.	Brown coal and lignite	9.	GDR
3.	Black coal (in million tons)	10.	Romania
4.	Petroleum (thousand tons)	11.	Hungary
5.	Natural gas (billion cubic	12.	*data for 1978
	meters)	13.	Ratio of brown and black coal
6.	Bulgaria		about 3:1

7. CSSR

 Source: for coal and natural gas, state plan annoucements; for petroleum PETROLEUM ECONOMIST, international periodical published in London

economic life of the CEMA countries' own energy sources, and at the same time their more economic utilization, the puting into operation of joint energetics investments, and the joint development of atomic energetics. It includes, moreover, the idea that the CEMA countries will acquire an increasing ratio of their additional energy requirements from developing countries in return for modern machinery and equipment.

Most of the socialist countries are trying to increase their production and consumption of solid fuels. For example, Poland wants to raise its present consumption of hard coal from 200 million tons to 232-235 million tons by 1985, and it is also increasing its brown coal mining. According to information published in the NEUES DEUTSCHLAND, the GDR is planning to open 21 new brown coal surface mines in the coming 10 years, and by dint of this increase its brown coal production from 253 million tons to 300 million. Romania is planning to mine 75 million tons of lower calorific coal in 1985.

As for natural gas, the 2,750-kilometer-long Orenburg gas pipeline was finished in 1979 via which 15.5 billion cubic meters of natural gas is delivered annually from the Soviet Union to those European CEMA countries which participated in its construction. A more even energy supply is also made available to the CEMA countries by the Vinnyica-Albertirsa high-tension, long-distance electric line which was finished last year.

As for the atomic energy situation, which up to now has been the least used type of energy, we may be witnesses to change here too. Today atomic energy plants are operating only in the Soviet Union, the GDR, the CSSR, and Bulgaria and these deliver all in all about 4 percent of the electric energy supply of the CEMA countries. But the first atomic power plants are also being built in Romania, Hungary, and Poland, and these will be put into operation in the 1980's. As a joint investment of the CEMA countries, an atomic power plant is also being built in Hmelnitskiy in the Ukraine, which according to plans will start energy production in 1984.

This year the developing countries provided about 6 to 7 percent of the fuel supply of CEMA countries. Iraq, Lybia and Algeria are today the biggest suppliers. Several states have already established the future of their petroleum imports from developing countries. As reported by the GDR economic periodical DDR AUSSENWIRTSCHAFT, the CSSR agreed in 1977 with Lybia to import from the latter 3 million tons of petroleum beginning in 1980.

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AWP CENTRAL COMMITTEE GREETS CANADIAN M-L PARTY ON ANNIVERSARY

AU312018 Tirana Domestic Service in Albanian 1900 CMT 31 Mar 80 AU

[Text] The AWP Central Committee has sent the following telegram to the Central Committee of the Marxist-Leninist Communist Party of Canada:

Dear comrades, on the occasion of the 10th anniversary of the founding of the Marxist-Leninist Communist Party of Canada, on behalf of all the Albanian communists, the AWP Central Committee sends to you and through you to all the Canadian Marxist-Leninist militants warm revolutionary greetings and wishes you further successes in your work and revolutionary struggle.

The founding of the Marxist-Leninist Communist Party of Canada 10 years ago constitutes a significant event for the revolutionary struggle of the proletariat and other working masses of Canada against capitalist exploitation and the country's subordination to American imperialism and for the indisputable rights of the working people of Canada, true national sovereignty and socialism.

On the occasion of your holidays, we would like to once again express the militant solidarity of the Albanian communists with the struggle and efforts of the Marxist-Leninist Communist Party of Canada and all the revolutionary Canadian workers against the monopolistic bourgeoisie, imperialism, social imperialism, reaction and modern revisionism of all hues for the triumph of socialism and Marxism-Leninism.

We express our conviction that the celebration of this jubilee of your party will serve as a source of strength and inspiration for achieving new and even greater successes along the road to fulfilling the tasks and the historic mission of the true Marxist-Leninist communists.

On this occasion, we hope that the fraternal relations and cooperation between our two parties will be further developed and strengthened on the basis of the immortal teachings of Marxism-Leninism and proletarian internationalism.

Long live the Marxist-Leninist Communist Party of Canada!

Long live the militant friendship between the Albanian and Canadian peoples!

Glory to Marxism-Leninis !

IMPROVED OPERATION OF BANK CREDIT SYSTEM NEEDED

Tirana ZERI I POPULLIT in Albanian 16 Feb 80 p 3

[Article by Thoma Semi, director of the Directorate for Credits, and Elsa Borici, chief specialist in the General Directorate of the State Bank of Albania: "For the Further Improvement of the Role and Effectiveness of the Credit System"]

[Text] The bank credit system in our country has been and is an important lever for implementing the economic and financial policy of the party. Today, our bank credit system is a consolidated system that is extended to all the stages of expanded socialist reproduction, with specified principles and functions and in conformity with the economic laws of socialism.

Carrying out the re-distribution of the temporary free monetary means according to the plan and with the condition of reimbursement, the bank credit system in our socialist economy has played and plays an important role in improving the effectiveness of social production. The high rates of expanded socialist reproduction have required and require large expenditures for increasing basic funds and for financing the circulating funds of the enterprises. The financing of a part of the circulating funds through the bank credit system has given and gives greater possibilities to the state budget for using the accumulation fund for financing basic investments. Today, about 50 percent of the needs for circulating funds of the enterprises are covered with credits, keeping the best possible relationships with the circulating funds, in accordance with the concrete characteristics of the organization of production and of the financing of the budget.

However, under the conditions when the needs for the rapid development of our economy are fully satisfied with domestic resources, it is necessary that work in the field of financing circulating funds and short-term bank credits be further strengthened, so as to plan and grant them with a strict system of economy. We emphasize this because practice has shown that manifestations, such as the unrestricted planning of financial assets or their norming and granting to a lesser extent than needed, have brought negative consequences to the fulfillment of the economic and financial plan and to the proper administration of socialist property. This demands that we abandon instances

of dynamic planning, for the sake of analogy and without responsibility, which still are observed in some cases, making it necessary and urgent to establish studied and scientific norms for the material reserves in all the branches of the economy.

Financing of the people's economy through the credit system is, in itself, essential for the execution of the principle of relying on one's own forces. By satisfying the needs of the enterprises of the production sphere and of the circulation sphere with financial means, credits have served, first, to mobilize all their internal resources and to guarantee the best possible implementation of the plan with as little expenditure as possible. Facts show that, in general, the rates of the increase of short-term credits and the rates of the increase of circulation have been lower than the rates of the increase of production and of circulation. Thus, in 1979, in comparison with 1978, while the overall volume of the industrial production increased by 8 percent and the volume of goods turnover by 4 percent and so forth, circulating assets and bank credits increased by an average of only 3.3 percent; this fact tells about the improvement of the effectiveness of credits and about the rapidity of their circulation.

Nevertheless, in conditions when shortcomings in the fulfillment of the plan in regard to quantity, assortments, and quality and delays and so forth have been observed in some enterprises or in some indicators—a fact which shows that a part of the funds has been spent without producing its effectiveness—it appears that somewhere, even temporarily, the rates and ratios have been upset and that the effectiveness of the use of material and monetary assets has been reduced.

The control over the implementation of the plan indicators is one of the main ways that guarantees the improvement of the effectiveness of credits. It is particularly under present conditions of the rapid development of our economy that the influence of credit in the fulfillment of the tasks of the state plan assumes an even greater importance. The role of credit in the execution of the tasks of the state plan begins with the planning stage for a real and scientific planning of economic and financial indicators, for the strengthening of the planning bases of material reserves in the economy and for discovering and averting eventual disproportions in the production and distribution of material goods. The credit system must exert an even greater influence in the implementation of the balancing method in the planning of the people's economy, in order to reach the most perfect harmony between the material aspect of production and the financial sources, so that they will be used with a strict system of saving and with effective-It is a fact that the balancing method has not yet found a complete implementation; the material balance-sheets are not drafted for the production of all nomenclatures, especially for those of the enterprises, and for all the elements of material reserves. The fact that during the year there are cases of disharmony in the special indicators of the plan or in their special aspects shows that attention and concern for the perfection of planning and for the correct drafting of its indicators must be further increased.

Also, in the functioning of control by means of the lek, the pursuing of the implementation of the plan tasks to the very last is a main work direction for the bank through the credit system. In this field, bank work must be concentrated more on the study and the pursuit of many problems that concern the enterprises, giving them better assistance and helping them at close range to solve the difficulties that might arise in the process of fulfilling the plan tasks. This is so because there still are manifestations of sluggishness, of laziness and of lack of responsibility and of initiative, concentrating more on office work and the pursuit of the fulfillment of the plan on the record. Our work is not sufficient and complete, where and when, there are shortcomings in production and in collection and when it is done at high costs or with losses and so forth, because, in such cases, the effectiveness in the field of credits achieved is not what is required. Effectiveness is guaranteed when our workers sit "crosslegged" and discuss the matter in the enterprises and when accounting and control officers go down to the warehouse of the enterprise to see why production is not distributed or why the goods are not tested and are not dispatched to the trade units on schedule and to take relevant measures in regard to shortcomings.

The persistent and systematical pursuit of the observance of socialist principles in regard to credits, which synthesize the requirements for fulfilling the plan tasks by each enterprise and in all anticipated indicators, which encourage and support everything that is positive and that stimulates production, and which become a strong barricade for the violations of the discipline of the plan and of finance, remain the main objective of the bank workers in executing the economic and financial policy of the party and improving the effectiveness of the use of credits.

9150

BRIEFS

TON DUC THANG'S DEATH -- The AWP Central Committee, the presidium of the People's Assembly of the People's Socialist Republic of Albania and the Council of Ministers of the People's Socialist Republic of Albania have sent the following telegram to the Central Committee of the Communist Party of Vietnam, the Standing Committee of the National Assembly of the Socialist Republic of Vietnam and the Council of Ministers of the Socialist Republic of Vietnam: We were sorry to hear about the death of Comrade Ton Duc Thang, member of the Central Committee of the Communist Party of Vietnam, deputy to the national assembly and president of the Socialist Republic of Vietnam. On the occasion, we express our deep feelings of sympathy and condolences to the Vietnamese people, the Central Committee of the Communist Party of Vietnam, the Standing Committee of the National Assembly, the Council of Ministers of the Socialist Republic of Vietnam and the family of Comrade [Text] [AU312104 Tirana Domestic Service in Albanian Ton Duc Thang. 1900 GMT 31 Mar 80 AU]

LEADERS AT CONFERENCE -- The Fourth National Conference of the Union of Albanian gymmasts and athletes opened in Tirana on 31 March. In addition to delegates from all parts of the country, the conference was attended by distinguished gymnasts and athletes, leaders of physical culture and sports institutions, trainers and others. Also attending were Ramiz Alia, politburo member and AWP Central Committee secretary; Manush Myftiu, politburo member and deputy premier; Lumturi Rexha, first secretary of Central Committee of the Union of Working Youth of Albania; Kheli Gjoni, secretary of the Tirana District Party Committee; and other comrades. Lumturi Markola, deputy chairman of the state committee for physical culture and sports, presided over the conference, Hehoi Bushati, chairman of the state committee for physical culture and sports, then delivered a report calling for further improvement of physical culture and sports. The floor was then taken by Tefta Cami, minister of education and culture, who greeted the conference on behalf of the AWP Central Committee and Council of Ministers. [AU312248 Tirana Domestic Service in Albanian 1330 GMT 31 Mar 80 AU

DEVELOPMENT OF THE NATIONAL ECONOMY IN 1979

Sofia STATISTICHESKI IZVESTIYA in Bulgarian No 4, 1979 pp III, IV, V, VI

[Statistical data]

[Text] General Remarks

The present quarterly publication contains annual, quarterly, and monthly statistical data on basic indicators characterizing the socio-economic development of the Bulgarian People's Republic.

The statistical notices program covers 12 sections:

- I. Basic Data on the Development of the National Economy
- II. Population
- III. Population Living Standard
- IV. Labor
- V. Capital Investments
- VI. Industry
- VII. Agriculture
- VIII. Transportation
 - IX. Communications
 - X. Internal Trade and Prices
 - XI. Tourism
- XII. Foreign Trade

The data for all sectors are by organizational structure and by the structure of the enterprises in the respective period.

Indicators in value terms are based on prices for the respective year. Annual indicators of industrial and agricultural output, capital investments, trade, and foreign trade prices, and the monthly indicators of industrial output are computed on the basis of comparable prices. Annual indicators are computed on the basis of 1970. Indicators for a period covering less than one year are based on the corresponding period of the preceding year.

Data on household monetary income, expenditures, and consumption are based on representative observations of household budgets.

Data for the current year are preliminary and subject to refining in subsequent issues.

Interpretation of abbreviations and symbols:

- Figure lesser than one-half of the corresponding unit;
- No case;
- . No data;
- PAK Industrial-agrarian complex;
- APK Agroindustrial complex.

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Development of the National Economy in 1979

The accelerated development of the National Economic Complex continued in 1979 in accordance with the tasks set at the 11th BCP Congress and the National Party Conference on steadily upgrading the quality and effectiveness of public production and the successful fulfillment and overfulfillment of the Seventh Five-Year Plan.

Industry

Compared with 1978 the volume of overall state and cooperative industrial output rose 6.2 percent. The highest pace of output increase was achieved by state enterprises in the following sectors: chemical and rubber industry, 8.9 percent; fuel industry, 8.4 percent; machine building and metal processing industry, 7.9 percent, and so on. Territorially, the highest growth rate in excess of 10 percent was reached by Mikhaylovgrad, Yambol, Khaskovo, Tolbukhin, and Blagoevgrad okrugs.

A total of 32.5 billion kilowatt hours of electric power was produced, or one billion kilowatt hours more than in 1978.

Compared with 1978 Bulgarian metallurgy produced higher volumes of steel and rolled ferrous metals.

The production of a number of basic machine building industry goods rose, including lathes, 17.7 percent; forklift trucks, 20.3 percent; electric hoists, 7.8 percent; and television sets, 16.8 percent.

Compared with 1978 the chemical industry enterprises produced the following additional amounts: calcinated soda, 15.7 percent; sulfuric acid, 2.4 percent; caustic soda, 4.7 percent; and nitrogen fertilizers, 0.8 percent.

Compared with 1978 the construction materials industry produced 4.9 percent more cement while the timber extraction and processing industry produced 6.2 percent more cellulose and 6.5 percent more paper.

The production of woolen fabrics, meat, cheese, canned vegetables and fruits, and other consumer goods rose in accordance with the implementation of the program for the ever fuller satisfaction of consumer demand.

In 1979 industry employed 19,000 less workers and employees compared with 1978. The per capita labor productivity of the industrial-production personnel employed by state industrial enterprises rose five percent.

Agriculture

A number of agrotechnical and organizational measures aimed at upgrading the effectiveness and quality of agricultural output and improving its management were implemented in this important national economic sector in 1979. This resulted in a higher volume of agricultural output in crop growing and animal husbandry.

The number of basic farm animals in the agricultural organizations and branches rose as follows: cattle, 1.2 percent; sheep, 2.9 percent; hogs, 3.0 percent; and poultry, 1.7 percent.

Compared with 1978 the productivity of the livestock rose. The average milk production per fodder-fed cow rose 8 percent while average egg production per hen rose 2 percent.

Territorially, the highest average milk production was reached by the following okrugs: Razgrad, Sofia City, Burgas, Varna, Plovdiv, and Ruse. The highest egg output per hen was achieved by the following okrugs: Sofia City, Veliko Turnovo, Pleven, Vratsa, Khaskovo, and Turgovishte.

The increased number and higher productivity of the livestock are the base for the steady growth of livestock output. In 1979 the agricultural organizations and their branches produced 127 million liters of milk and 45 million eggs more than in 1978.

Compared with 1978 the quantities of basic agricultural commodities purchased rose considerably, as follows: meat, 5.8 percent; milk, 9.3 percent; and eggs, 10 percent.

Capital Investments

In 1979 5.4 billion leva were invested in the expansion and modernizing of the material and technical base of public production. The bulk of the capital investments went to the development of structure-determining national economic sectors, as follows: industry, 44 percent; agriculture, 15 percent; and transportation, 12 percent. In accordance with the implementation of one of the most important programs for upgrading the living standard of the people--the housing construction program--689.7 million leva were invested in the housing-communal economy sector, or 5.6 percent over 1978. A total of 42.3 percent of the overall volume of capital investments was channeled into modernizing and reconstructing existing capacitites.

At the end of 1979 productive capital worth 4.7 billion leva was installed. The highest share went to industry, agriculture, transportation, and the housing-communal economy.

Transportation

Compared with 1978, in 1979 the transportation system hauled 1.6 percent more passengers.

A considerable increase in labor productivity was achieved in railroad transportation, 1.7 percent; maritime transportation, 17.0 per ent; riverine transportation, 12.8 percent; and civil air transport, 13.8 percent.

Communications

In 1979 income from communication services totaled 254 million leva or 10.1 percent more than in 1978. The labor productivity of the operational personnel rose 10.2 percent.

Trade

Compared with 1978 retail trade rose 6.8 percent. Trade rose 7.3 percent in the commercial network and 5.0 percent in public catering.

The trade network was expanded during the year through the opening of a number of modern enterprises in which conditions for new and progressive forms of services were created.

Compared with 1978 there was a considerable increase in sales of a large number of basic comestible and noncomestible goods such as meat products, vegetable cooking oils, milk, cheeses, butter, canned vegetables, preserves, clothing, upper knitted goods, hosiery, shoes, furniture, television sets, household refrigerators, and others.

In 1979 Bulgaria continued to develop its foreign economic relations with the socialist countries and, above all, with the Soviet Union. Our country's participation in the socialist economic integration was intensified. In the course of steadily expanding relations with non-socialist countries, Bulgaria is becoming an ever more valued and sought after trading partner. Compared with 1978 foreign trade rose 11.4 percent; exports rose 15.4 percent and imports 7.4 percent.

Host of Bulgaria's exports (45 percent) consisted of machines and equipment for industrial purposes. The volumes of exported chemical products, food, industrial consumer goods, and others, rose as well.

Compared with 1978 more electric motors, motor vehicle batteries, forklift trucks, electric hoists, tractors, ships and ship riggings, calcinated soda, canned vegetables, preserves, wines, and others were exported.

Increased amounts of fuels, mineral raw materials and metals, chemicals, and industrial consumer goods were imported.

SIGNIFICANCE OF FOREIGN TRADE EMPHASIZED

Export Effectiveness Urged

Sofia ANTENI in Bulgarian 12 Mar 80 pp 1, 8-9

[Article by Prof Dimitur Vasilev]

[Text] In 1980 Bulgarian foreign trade will exceed 16 billion foreign currency leva. This will be the sum total of the country's exports and imports in international prices. The first question is why foreign currency leva? What is the foreign currency leva?

Sales of Bulgarian goods on foreign markets are made in foreign currency: rubles, British pounds, dollars, West German marks, Swiss and French francs, etc. The foreign currency earned from such sales is recorded by the Bulgarian Foreign Trade Bank in foreign currency leva. The foreign currency is computed on the basis of the official rate of exchange of the leva compared with the corresponding foreign currency. In December 1979 the rate of exchange was the following:

100 rubles = 130 Bulgarian foreign currency leva;

100 U.S. dollars = 85.20 Bulgarian foreign currency leva;

100 Swiss francs = 51.33 Bulgarian foreign currency leva;

100 French francs = 20.40 Bulgarian foreign currency leva;

100 West German marks = 47.60 Bulgarian toreign currency leva.

The Bulgarian foreign trade enterprises buy and sell goods in different countries. Payments are made in a mutually accepted currency, usually one which could be converted into any other currency. Purchases and sales among enterprises within the socialist countries are made in transferable rubles. In both cases the Bulgarian Foreign Trade Bank credits or debits sellers and buyers in foreign exchange leva. The foreign exchange leva is a clearing monetary unit used by our country in commercial relations with other countries. In physical terms it does not exist.

The question is what are these 16 billion foreign exchange leva worth? Are they worth more than 16 billion domestic leva or are they worth less?

According to the plan all goods which Bulgaria will sell on the foreign markets in 1980 would bring about 8 billion foreign exchange leva. Should the same goods, computed in internal prices, delivered at border points or ports be also worth 8 billion internal leva at the moment of their loading, ir would mean that one foreign exchange leva equals one internal leva. However, should such commodities cost more internal leva, each foreign exchange leva will cost to our country more than one internal leva. Conversely, if the same amount of Bulgarian goods which will earn from sales abroad 8 billion foreign exchange leva cost less than 8 billion internal leva, each foreign exchange leva will cost our country less than one internal leva.

The Bulgarian Communist Party and government are directing the economy toward the production of goods which, exported, will earn more foreign exchange leva compared with internal leva. In terms of economics, this means to improve the structure of Bulgarian foreign trade and e: port highly effective goods. Consequently, the ratio between the foreign leva and the internal leva depends mainly on the country's labor productivity. To a certain extent it also depends on the conditions and prices at which Bulgarian goods are sold abroad. The more favorable the ratio between the leva and the foreign exchange leva is in favor of the leva, the lower will be the cost of foreign goods on the domestic market. Conversely, in the case that a Bulgarian commodity worth one internal leva earns less than one foreign exchange leva abroad, foreign goods sold within the country will cost more. The negative difference between the leva and the foreign exchange leva will have to be covered by the higher price of the imported commodities.

The list of Bulgarian export goods includes a number of items purchased for one leva in the country yet bringing more than one foreign exchange leva abroad. These are high return commodities. Their output is increasing. Other commodities involve production costs considerably in excess of one leva yet sold abroad for under one foreign exchange leva. These are losing commodities. Their production is being steadily curtailed. However, changes in the export structure are not a matter of a day or a year. A longer period of time is necessary to improve it. This is a continuing process.

Under the conditions of the technical revolution and changes in commodity output in the world and in the international markets, the effectiveness of the goods changes rapidly. Goods effective today may be losing next year. Our production must be in step with the corresponding progress and change in the positive direction. We must produce new goods in demand. Straggling immediately affects the effectiveness of output and the living standard of the people.

The great volume of Bulgarian exports creates good opportunities for importing substantial quantities of machines, instruments, and raw materials. The domestic market may become more comprehensive and

varied with the help of the foreign exchange earned from the sale of Bulgarian goods. The situation is more favorable when Bulgarian export goods are well received by foreign customers and fetch high prices. Conditions are created for raising the wages of the working people and offering a broader variety of foreign goods on the domestic market.

The great volume of exports involves certain risks as well. Should the country produce obsolete goods, unprofitably, wasting raw materials and machinery, wascing manpower, and ignoring the requirements of foreign markets in terms of the technical parameters of the goods, quality of containerization, time of deliveries, maintenance of machinery and equipment following sales, and so on, the high volume of exports may create a great danger of losses. Thus, for example, assuming that our country has undertaken the production of a series of electronic and electrical engineering goods accounting for about 16 percent of total Bulgarian exports, i.e., over 1 billion foreign exchange leva, the only solution would be to produce high quality goods meeting international standards. This requires a number of prerequisites: knowledge of the level of output reached by the competitors, knowledge of markets and prices, effective scientific research and application work, fast reaction to world progress in the area and development of new goods, and competitiveness.

Under such circumstances favorable sales of Bulgarian electronic and electrical engineering goods may by expected. However, should we fail to accomplish this quickly and effectively, and should our goods be worse than those of the very big competition, the real danger exists of worsening effectiveness to such an extent as to eliminate the high profitability of other sectors as well. The country's specialization within CEMA in the fields of electronics and electrical engineering is an advantage. An extensive market—the CEMA—member countries—has been secured. Yet, it is also a major responsibility, for we must maintain the proper standards. Otherwise, our customers would be uninterested in purchasing Bulgarian electronic and electrical engineering goods.

Scientific and technical progress in the field of electronics is developing at a high speed. New generation goods are steadily appearing on the market, considerably more effective and more advantageous than the older ones. Competition is intensifying. It keeps countries and companies on the lookout and sharply clashes against "tranquility" and sluggishness.

According to statistical data Bulgaria and every Bulgarian citizen are considerably more dependent on icreign markets than the other socialist countries. A somewhat similar situation prevails in a number of non-socialist countries as well. Bulgaria and the Bulgarian citizens are far more dependent on foreign trade than a number of European countries.

including our neighboring nonsocialist countries. With its economy open to the world, our country has no choice other than the steady search for ways, means, and methods for improving output, and upgrading its effectiveness seen through the lens of the international markets. They are the decisive umpire of the effectiveness and organization of the Bulgarian production process and the marketing of the goods produced!

Exports and imports totaling 16 billion foreign exchange leva presume the strict and comprehensive intellectualizing of the national economy—the intellectualizing of production, transportation, and foreign trade. Bulgaria is becoming ever more dependent on foreign markets. It can neither abandon international trade nor tolerate low effectiveness. The way to national prosperity unquestionably goes through the high effectiveness of domestic production and ever more effective marketing abroad.

Bulgarian machines and equipment are exported to 62 countries in all five continents. There they compete with the machines of dozens of other countries. They wage a steady struggle to retain their position and broaden their marketing areas. Such is the situation with all Bulgarian export goods.

The high volume of Bulgarian foreign trade, compared with the country's territory and population, offers opportunities for upgrading national economic effectiveness. Assuming that better planning and better organization of overall operations in the production, transportation, preparations for, conclusion, and implementation of foreign trade deals improve results by 10 percent, our country would achieve tremendous savings totaling 1.5 billion foreign exchange leva. There is hardly a working person in our country who would be unable to improve his work by 10 percent. This would enable us to raise the wages of three million working people by 500 foreign exchange leva annually.

Consequently, the participation of our country in the international division of labor offers real possibilities to everyone to upgrade his prosperity through his work. This precisely is the nature of the new economic mechanism: tying wages to results. The more foreign exchange is earned from the sale of Bulgarian goods abroad the higher will be the wages paid those participating in the production and marketing of the goods.

That is why we are speaking of a "clash" between the national economy and the foreign markets: The pulse beat of the customer, and his reaction to consumer qualities must be felt in the production of any item made for export. The producer at the Mashstroy programmed lathes in Troyan, must be familiar with the reaction of his customer in Melbourne, take his specific requirements into consideration, and offer him a steady supply of spare parts and services. For example, the Japanese suppliers pride themselves with being able to provide spare

parts and services for machines sold in London faster than British companies located in Birmingham. This is exceptionally good advertising for the Japanese companies.

The customer is ready to pay more and to recommend our machine to other consumers should it be superior to similar machines offered by the competition. Furthermore, the Troyan producer should know how his machine tool is working, do defects appear, and what innovations are being introduced in his machine tools by other producers. . . . Furthermore, he himself must improve the efficiency of his lathe in an effort to raise the price and increase sales.

However, the high volume of Bulgarian foreign trade conceals other dangers as well. Failures to systematically renovate output, disparity between the item and the requirements of the foreign customers, failure to steadily lower prices, failure to improve the servicing of equipment sold abroad, based on reciprocal services of imported goods, would lower the effectiveness of our participation in the international division of labor. Falling 5 percent behind in a single year is the equivalent of 800 million foreign exchange leva which, automatically worsens the prosperity of those 3 million working people who have directly and indirectly participated in the production and marketing of Bulgarian goods abroad and the procurement of foreign goods by the country.

Bulgaria has become firmly involved in the international division of labor. A tremendous material and technical base has been created, consisting of hundreds of plants and thousands of enterprises of different scales. They are part of the tremendous system of the global economy. Bulgaria is one of the 19 industrial countries accounting for 99 percent of the world's industrial output. That is why no other solution exists. We must be in step with the objective laws of the global economy. In the opposite case we shall be replaced at the market by other goods. This would mean the worsening rather than improvement of living standards. The laws of economics are merciless. They inevitably lead to paying people according to the quantity and quality of their work. The global economy is unaware of equalization and offers no opportunity for working little while earning a great deal. The international market demands factual high quality, highly effective, and competitive goods. All obstacles can be surmounted providing that our goods meet such requirements.

Foreign Market Forecasting

Sofia ANTENI in Bulgarian 12 Mar 80 pp 8-9

[Article by Candidate of Economic Sciences Elka Micheva]

[Text] The question of the ties between Bulgaria and the foreign markets is not merely scientific. It appears on a daily basis in the

activities of the economic organizations. For example, under the conditions of the new economic approach, it is not a matter of indifference in the least to the producers of metal-cutting machines whether or not their machines are accepted in the foreign markets and the prices they fetch, as the results directly influence the wage fund. Production, exports, and imports are in a state of constant interaction whose consequences could be either favorable or unfavorable.

The foreign exchange earned from exports determines the import possibilities of our country. There is a steady rise in the need to import machines, equipment, and raw materials which are either not produced domestically or are insufficient to meet the needs of the country. It is precisely this dialectical tie and dependence that force Bulgarian producers to steadily watch changes in similar items produced by other countries and take them into consideration. In the opposite case they would not meet competition successfully. The prices of Bulgarian export goods had declined as a result of delays in the modernization of the plants which required imported equipment and technologies. An open economy is a two-edged knife. On the one hand, it offers great opportunities to rapidly modernize production, increase the variety of goods, and lower their prices. On the other, should we fail to properly take into consideration the dynamic production changes of countries competing with us, the real threat is created of falling behind and suffering adverse consequences in the marketing of Bulgarian goods.

Our country is building new enterprises for the specific purpose of manufacturing goods essentially for export. Millions of foreign exchange leva are spent on their construction. Should the output meet the quality requirements of foreign markets, such expenditures are quickly compensated. Production profitability rises and so does the part of the income distributed as additional wages. On the scale of the entire economy these are processes which create material prerequisites for the growth of the national prosperity.

However, other cases are known as well. Capital investments have been made without adequate preliminary studies or consideration of current and future demands of foreign markets. The results in such cases have been negative not only to the enterprises themselves but the entire national economy, occasionally over long periods of time. Once built, such enterprises should be maintained and operated regardless of the ineffective marketing of their output.

Under present day circumstances a small country such as ours cannot develop an effective output aimed at satisfying domestic requirements alone. For this reason, in accordance with the current economic mechanism, the effectiveness of capital investments made by economic organizations to modernize or create new production facilities should be proved on the basis of international prices. This applies not to

current prices but prices at which the goods sold at foreign markets at the time when the enterprises will become operative will be sold. The cost of improving production and creating new capacities should be based on solid economic foundations, including forecasting related to foreign markets and prices. All liberalism in this respect is harmful.

The all-round study of proposals for new production, based on the dynamic changes in the global economy, are a particularly important factor in upgrading the effectiveness of our national economy. Under present day conditions the economic organizations must concentrate to an ever greater extent on the production of items which would enable us to recover investments within a short period of time and contribute to increasing variety.

The favorable conditions enjoyed by our country as a member of CEMA and as an active participant in socialist economic integration offer great possibilities for the display of initiative, the accelerated introduction of new technologies, and the mastering of the production of new items. The problem can no longer be reduced merely to the use of the leading experience of other countries or companies. We ourselves must develop new goods on the basis of our own studies and experiments. This most emphatically applies to the production of new food products for which our country presents natural favorable conditions. Rationalizations in this respect and the successfully developed new, strictly Bulgarian goods which have gained recognition on the international markets should be encouraged more extensively. Our country has great possibilities in this respect.

MANIPULATION OF STATISTICAL PRODUCTION DATA CRITICIZED

Sofia STATISTIKA in Bulgarian No 1, 1980 pp 3-10

[Article: "For Prompt and Accurate Information"]

[Text] The requirements concerning the information to be submitted to the social management organs at all levels are rising steadily. In the stage of the building of a developed socialist society, when all social areas and activities are characterized by high-level dynamism, intensified division of labor, and production concentration and specialization, the question of the quality of information assumes exceptional importance in the successful management of the national economy, the country's rational utilization of manpower, material, financial, and foreign exchange resources, and the implementation of the party's strategic slogan of high effectiveness and high quality.

A great variety of factors determine the implementation of these major and important assignments. Discipline, responsibility, and high quality implementation of labor obligations at each work place are of decisive importance among them. "Without discipline," Comrade Todor Zhivkov emphasized, in his opening address at the July 1979 BCP Central Committee Plenum, "there is no modern production or management, there is no development of life. When the feeling of self-discipline is absent in individual units or people, society must introduce order and discipline." All this most emphatically applies to the personnel in the field of accountability and information services to social management organs. The topical nature of the problem of information accuracy and the observance of accountability discipline becomes even greater under the conditions of the systematic application of the economic approach and of the new economic mechanism.

Considerable work was accomplished in recent years to improve the comprehensive information services provided to the social management organs. Social information has become considerably broader and richer. Numerous new statistical studies were undertaken. Statistical developments were improved, and the time required for the submission of the finished information product was reduced. Analytical and publication work improved. The Committee for the Unified System for Social Information and its organs—the territorial information—computer centers and rayon

crop inspectorates—are systematically concerned with securing timely and accurate comprehensive information on the fulfillment of the unified plan for the country's socioeconomic development. Particularly great attention is being paid to securing reliable data, consistent with methodological requirements, used within the system of the Committee for the Unified System for Social Information, issued by economic and noneconomic units. In this respect, thanks to the measures taken by the party organs and the government, and the purposeful control—auditing work of the Committee for the Unified System for Social Information, and the other ministries and departments, unquestionable progress has been made in information activities and in improving the accountability and quality of statistical data. Nevertheless, however, some economic organizations and enterprises are still violating established procedures and reporting nonfactual and, in most cases, padded results of their activities.

Both the investigations and study of results indicate that in industry some combines and enterprises report unfinished production as finished and substandard goods as standard. Included in the monthly plan are goods which, in fact, have been produced in the first few days of the following month. In some cases of a more substantial overfulfillment of the plan the entire output is not reported and some of the surplus is kept as "reserve" for subsequent months.

Agricultural organizations and enterprises violate information accuracy mainly in reporting the size of planted areas, farm commodities produced, average yields, and production costs by crop.

The construction organizations include in their volume of construction output unfinished construction and installation operations. Projects whose construction has not been completed are reported as completed.

Trade enterprises include in their retail trade reports sales whose nature cannot be considered commercial.

The amount of raw material, material, and fuel surpluses are reduced in the reports submitted in the area of material and technical supplies with a view to securing reserves exceeding stipulated norms.

The observance of accountability discipline is of exceptional importance to the overall improvement of planning, financial and labor discipline at all social management levels and in all realms and activities of social life. All this, in its entirety, is of prime importance in the implementation of the party decisions of upgrading economic effectiveness and quality of output. That is why such matters are subject to particular attention on the part of the country's leading party and state organs. In May 1977 the BCP Central Committee Politburo drew attention to "the need for the overall observance of the stipulations of legal documents regarding statistics and statistical accountability and the strict prosecution of chose who falsify statistical data and

accounts for the sake of extracting illegal material and moral benefits for themselves or the collectives they head." At the end of September 1979 a BCP Central Committee Politburo decision was issued on major violations of state, planning, and financial discipline allowed within the systems of the Ministry of Machine Building and the Ministry of Electronics and Electrical Engineering.

The investigations and audits conducted by the Committee for State and People's Control have indicated that enterprises within these two ministries have permitted the faulty practice of reporting, with or without permission, as part of the overall industrial output unfinished or incomplete items which remain such over long periods of time. Reporting plan fulfillments, the enterprise managements thus failed to indicate the factual results of economic activities and have concealed the true situation prevailing in plants and enterprises. This faulty work and management method has resulted in the worsening of the production and financial condition of the plants and enterprises and the nonfulfillment of contractual obligations, and has damaged the national economy. The BCP Central Committee Politburo firmly condemned such actions and manifestations as being alien to the socialist economic management principles, morality, and norms of behavior, and adopted specific decisions.

The 25 September 1979 BCP Central Committee Politburo decision is an important party document, of great importance to all party, state, and economic managers. It triggered the broad response of our public. On this occasion, a conference was held on 17 October 1979 by the management of the National Control System. Delegates to the conference noted that instead of focusing the efforts of their collectives on improving production organization, finding reserves, and insuring the full utilization of material and technical facilities, a number of enterprises have taken the path of unjustified requests for the amendment of plans and the improper reporting of their implementation. In this connection the control units and specialized control organs do not make full use of their rights. In a number of cases internal control ignores such distortions and falsifications. These conclusions have been confirmed by the investigations conducted by the Committee for State and People's Control at the Committee for Labor and Wages, Main Administration of Prices, Committee for the Unified System for Social Information, and others.

In accordance with the 25 September 1979 BCP Central Committee Politburo decision, and in order to further improve planning and accountability discipline in ministries, and other departments and economic organizations, the Council of Ministers passed a resolution on specific duties assigned to the Committee for Unified System for Social Information. Furthermore, the leadership of the Committee for State and People's Control considered the data of the investigation of the organization of control work and effectiveness by the Committee for the Unified System

for Social Information. The positive work accomplished in the development and strengthening of the control organs by the committee was noted. At the same time, it was pointed out that the organization and activities of functional control are still below the increased requirements concerning the all-embracing, uncompromising, and effective control over the accuracy of information and the installation of automated information and management systems. Specific decisions were adopted on further improving the control activities of the Committee for the Unified System for Social Information.

The findings and decisions passed by the central party and state organs in connection with the investigations carried out by the Committee for State and People's Control are the target of particular attention and reason for a most profound comprehensive study of the overall control activities carried out by the Committee for the Unified System for Social Information and its local organs and branches. The committee's leadership considered in detail the condition of the implementation of functional control and adopted a number of measures aimed at meeting the stricter requirements and carrying out the assignments. Specific instructions were issued to the structural units of the central management, to the territorial information-computer centers, the rayon crop inspectorates, and the other subunits.

Let us note that the work done so far is nothing but a good beginning. Comprehensive efforts must be made to establish preventive, systematic, comprehensive, and effective control. The approach to the problems of information accuracy and the observance of accountability discipline by every manager and associate, both within the system of the Committee for the Unified System for Social Information and all national economic units, must be amended. In this respect the Committee for the Unified System for Social Information and the territorial information-computer centers and rayon prop inspectorates have been assigned an important role. Their initiative-mindedness, fast reaction to negative phenomena, competent control, and intolerance of violations will determine, to the greatest possible extent, the all-round improvement of accountability discipline and the quality of information services submitted to the social management organs at all levels. It must be properly understood that the quality of the finished information product is developed at each step of the complex technological process of the gathering, transmission. processing, and submission of necessary data. Our system is equipped with powerful electronic-computer and other instruments. However, the effectiveness of its work becomes considerably lowered if it is fed erroneous or incomplete data inconsistent with methodological requirements. That is why, along with insuring the highly effective utilization of such equipment, at the present stage we are also faced with the task of decisively improving the quality of raw data.

In this respect the party and the government have granted the Committee for the Unified System for Social Information extensive rights which

are still not always and comprehensively used by the personnel of the territorial organs and the central management. A number of territorial and information-computer centers are allowing major weaknesses, displaying insufficient initiative and persistence in involving and insuring the full participation of okrug control organs which, according to the 1974 Council of Ministers Decree No 51, must conduct systematic investigations of the economic organizations and their branches on the observance of the rules governing reports on production-economic activities. Other territorial information-computer centers take it upon themselves to meet the stipulations of Decree No 51 without insuring the participation of the co-performers. Under such circumstances both the results and the impact of such investigations cannot be as effective as with the joint participation of the okrug organs of the Ministry of Finance, Bulgarian National Bank, Committee for Labor and Wages, and State Committee for Standardization. That is why now, on the basis of the stricter requirements regarding accountability discipline, and the existence of Council of Ministers Decision No 211, dated 29 October 1979, facing the Committee for the Unified System for Social Information, Ministry of Finance, and Bu'garian National Bank to intensify their control and exactingness concerning the factual reporting of the fulfillment of the plan and the proper handling of primary documents, comprehensive work must be developed in this respect. The work must be organized in such a way and the type of conditions and reliable barriers must be created to make the presentation of false data impossible.

Planning is an important aspect of the overall organization of control over information accuracy. The specific selection of investigation targets, and directing the efforts toward topical subjects and basic accountability problems are of decisive importance to improving control effectiveness. The rational placement of available cadres, upgrading their skills and level of competence, investigation timing, focusing on topic and target investigations, insuring good coordination and interaction with the organs of the Committee for State and People's Control and the other departments, and the utilization of a variety of methods for influencing the work of accountability units are exceptionally important levers for the overall improvement of accountability discipline in economic and noneconomic units.

Let us note that in their control activities so far the territorial information-computer centers have not made adequate use of these levers. This also explains the fact that no adequate improvements are made in the quality of received data despite a growing annual number of investigations. A total of 7,314 investigations were made in the first nine months of 1979, in the course of which 1,828 violations were noted yet only 177 officials were penalized and ordered to pay fines averaging 17.40 leva. A study of control activities has indicated that a number of territorial information-computer centers focus mainly on easier investigation targets and relatively simple accountability reports and indicators, allowing a certain formalism in their work and displaying,

in the course of their investigations, unjustified tolerance and liberalism toward violators of accountability discipline.

Obviously, this shows that the question of information accuracy is underestimated by some managers of territorial information-computer centers. This calls for improving the planning and accounting of the results of control-auditing work. Along with other indicators, its effectiveness must be determined by the quality of the primary and processed data acquired by the territorial information-computer centers. This calls for accelerating the efforts to develop an efficient system for supervising data quality at all levels of the technological cycle. The strict consideration of this quality by the territorial centers and the National Information-Computer Center, and the periodical reporting of discovered errors in data surveys and processing will contribute to achieving an overall improvement in the providing of information services.

The systematic application of the economic approach requires the use of such indicators in assessing material incentives for management cadres and specialists in territorial information-computer centers and in the central management of the Committee for the Unified System for Social Information. The use of economic levers in improving accountability discipline and the quality of information should be applied outside the committee's system as well. Rich experience has been gained in this respect by some UCSR republics in which the conclusions of the statistical organs concerning the accuracy and observation of deadlines for the submission of reports are mandatorily taken into consideration in determining the size of the bonuses paid managerial personnel in economic enterprises. Officially such rights have not been granted to the organs of the Committee for the Unified System for Social Information. However, our system makes entirely inadequate use of the right which, in fact, is a duty as well, to report systematic violations of accountability discipline by individual national economic units, addressing itself both to their superior economic organizations as well as the okrug and obshtina party and state organs. Let us emphasize that the experience of the territorial information-computer centers which use this method in the efforts to improve accountability discipline has indicated that it yields very good results.

Quite frequently the territorial information-computer centers do not keep a record of the instructions they have issued on eliminating the reasons for noted violations by accountability units or follow up their implementation. This greatly lowers the effectiveness of control activities and leads to a relaxation of the accountability apparatus of economic and noneconomic units. Obviously, in this area as well, it would be expedient to introduce specific indicators to be considered in assessing the control work of the territorial organs of the Committee for the Unified System for Social Information.

In 1979 a representative study was conducted of the accuracy of statistical data on the volume of industrial output. The results were encouraging. Such representative studies of the accuracy of statistical data submitted by accountability units should be continued, on a broader scale, expanding both the range and the indicators. Organized on a firm scientific basis, such studies and investigations will not only have a positive influence on the economic units but will make it possible to assess the level of accuracy of the collected data on the individual indicators.

The control functions and rights in the area of information activities, granted the Committee for the Unified System for Social Information, are an expression of the high trust of the party and the government. At the same time, they are also one of the committee's basic obligations as a qualitatively new information organ of the socialist state. Such rights must be used sensibly and all necessary measures must be taken to protect accountability units from errors and omissions. Accountability specialists must be given systematic help. Particular concern must be shown for newly hired personnel. However, this does not mean in the least that liberalism or unjustified tolerance should be displayed. This particularly applies to those who deliberately submit erroneous data and falsify reports. Such people must be subjected to the full severity of the law. At the same time, a variety of incentives should be used to encourage those who carry out their obligations impeccably. Their achievements must be publicized and their experience disseminated extensively.

The consistent, systematic, and uncompromising struggle for accurate and prompt information and for creating the necessary prerequisites and conditions for the strict observance of accountability discipline in all material and nonmaterial production units is an inseparable part of the nationwide struggle for the implementation of the major tasks leading to a further upsurge and ascending development of our socialist homeland. A drastic change must be made in terms of the exactingness of the leading cadres and specialists and, particularly, the directors of territorial information—computer centers in terms of matters of data accuracy. This, along with a profound study of the nature of phenomena and processes, and the determination of links and correlations within the national economy, is one of the most important conditions for decisively improving the quality and effectiveness of information services provided by the social management organs at all levels.

MARTINKA GIVES GUIDELINES FOR 1980 PLAN FULFILLMENT

Prague HOSPODARSKE NOVINY in Slovak 1 Feb 80 pp 1, 6

[Article by Eng Karol Martinka, SSR Deputy Premier and Chairman of Slovak Planning Commission: "How to Manage Material Relationships in Planned Fashion"]

[Text] At the present time, when in the individual work places we are implementing by our creative activity the first tasks of the economic and social program approved as part of the state plan for development of the national economy in 1980, extremely important planning work is still in progress at the various management levels. This work will do a good deal to determine the success with which this year's plan assignments are fulfilled overall by our national economy. The state plan and its assignments are being put into final, specific form in the economic plans which must be approved for the individual management levels by their parent organizations by 22 February 1980.

We can say without exaggeration that the quality of planning work in this area is no less decisive than the quality with which the state plan itself, its interconnections, proportionality and "balance" are worked out. Two basic tasks are involved here:

- 1. the economic plans at the various levels of the economic organizations must break down the state plan assignments, i.e. must put the tasks following from the interests and priorities of the society as a whole into specific form for the individual workplaces;
- 2. when the assignments are put into final, specific form, they must insure consistent coordination between the plan and the assignments; i.e. the interrelations between economic organs and organizations must be specified, as well as deliveries and purchases of raw materials, other materials, semifinished products and finished products, and the conditions for technical and material support of production must be created. Accordingly both the suppliers' and purchasers' economic management organs must bring supplier-purchaser relationships into agreement with the state plan by 31 January.

Plans should not be finalized and approved when the supplier-purchaser relationships which are critical for an organization's plan fulfillment have not been satisfactorily worked out.

It is this second basic task which is critical for a smooth and rhythmic pace of production and thus for uninterrupted, dynamic development of the economy as a whole.

Subjective Causes of Shortcomings

Last year was beyond doubt an extremely complex period in the development of the national economy. Its course was negatively affected by many unforeseen circumstances as well as by subjective inadequacies in management work itself. This complexity of development manifested itself most prominently, perhaps, in material support of production, in breakdowns in the furnishing of raw materials, other materials and a wide variety of finished products. This area was subjected to criticism—justified criticism, it must be admitted—throughout the year. Analysis of these circumstances allows us to state that breaches of the relationships between suppliers and purchasers caused by the January production slump and by its gradual elimination in the enterprises, in a manner which was not always organized and structured in keeping with the interests of the entire society, had greater consequences than just the drop of roughly 6 billion korunas in output.

The actual background and the true causes of these imbalances were not analyzed, but frequently were routinely ascribed to supposed "unbalancedness" of the plan without any critical evaluation of the shortcomings in management and organizational work at the individual management levels.

No one investigated whether materials shortages resulted from the state plan itself, which was responsible only for providing the national economy with the basic raw materials and other materials, whether it was the result of inadequately worked-out supplier-purchaser relationships and of the immense quantity of products which the purchasers obtained directly from the producers, or whether it might have resulted from a lack of discipline on the part of the suppliers in making their planned deliveries. Moreover the state plan was frequently replaced by the economic plans of the enterprises, economic production units and ministries.

These shortcomings were also warned of in the report of the KCS Central Committee Presidium at the 14th KSC Central Committee session, which among other things stated that "our national economy, held together in innumerable ways by mutual cooperation between enterprises, suppliers and purchasers, can function smoothly only if there is complete synchronization of the operation of these connections. No enterprise can fulfill its tasks well without smooth coordination with a large number of other enterprises."

We cannot alter anything about last year and its consequences. However, we must learn from what happened then and draw conclusions so as to avoid repecting the errors and shortcomings. This is the more necessary because

last year's tendencies and break in rhythm have repercussions this year as well, and because the main tasks of the 1980 plan are as we know more complex and demanding in all respects than those of the previous period. And since this area, which cuts across economic work at all levels, can be said to have been its weakest link, it now requires concentrated attention.

The performance plan for 1980 has been approved and is currently being developed into individual assignments at the enterprise level. The basic proportionality is provided and the main materials sources and requirements coordinated at the state plan level. This proportionality and balance cannot, however, be considered complete, much less static. Effective balance is not timple arithmetical equality between output and consumption, but a relationship between them which assures attainment of the best ultimate results with the least expenditure and in the shortest possible time. Again, it is in terms of completeness that we should view the important place and role assigned to supplier purchaser relationships, which as mentioned above must be brought into agreement with the tasks and aims included in the state plan by 31 January 1980. In practice this means primarily investigating how well the delivery arrangements worked out between producers and purchasers in the stage when the draft plan was being developed assure achievement of the output level that is assigned and included in the enterprises' economic plans, as well as discussing with the suppliers and agreeing upon deliveries of additional products not previously discussed which are essential in order to assure planned output. These discussions must ultimately lead to the conclusion of an economic agreement and the creation of real conditions for the smooth supplying of production and the making of deliveries for export, the populace a d capital construction.

Making Material Balancing More Thorough

In carrying out this demanding and far-reaching work, It is necessary to proceed with the knowledge that since 1978 an improved system for management of material relationships has been in force here (CSSR Government Decree No 15/1978). It involves an extensive range of measures governing the entire system for management of material relationships, based on:

assuring long-term equilibrium between supplies and consumption (five-year and annual plans);

a systematic division of balancing work among the various management levels (with expanded roles for the state plan, the ministries and the economic production units);

limiting the role of direct supplier-purchaser relationships primarily to the furnishing of products not covered by the central balance;

perfection of a series of specific measures aimed at thrift in consumption, improved market intelligence, use of the management system by centralized coordination [gesce], management of the warehouse system, improving the effectiveness of economic agreements and the like.

The primary position in this system is occupied by expansion and deepening of material balancing at the central level. The number of balances in the state plan is increased from 210 in 1978 to 297 in 1980. In addition, balances for another 117 products are being introduced in the ministries and for 218 in the economic production units. Thus decisions are made concerning the use of a considerable proportion of the main raw materials and other materials, as well as of critical manufactured products, including almost 100 percent of all products in fuel and energy, about 50 percent of machine building industry products, 65 percent of products of the chemical and consumer goods industries and about 60 percent of all building materials output.

The state plan assures proportion not only in the abovementioned material balances but also in the designation of selected named products for import, export and market stocks.

Another basic measure by which the state plan assures proportionality in material relationships is the designation of output levels in value terms and their apportionment for the main uses (i.e. for export, market stocks, capital construction and producer uses). In addition, the state plan now supports the process of economizing on the consumption of raw materials and other materials by designating an upper limit to material expenditure per unit of output as one of the decisive aspects of proportionality.

Thus this year's state plan assures balance in the main raw materials, other materials and finished products—contingent, it is true, on planned improvements in consumption levels and greater mutual understanding between producers and purchasers as regards the improved material relationships system.

What to Avoid

In order that this prerequisite should be definitely met in economic life, it will be useful to consider certain features of last year's development and to draw conclusions for the present on the basis of this information. We consider that the most important negative phenomena to be avoided are as follows:

The incorrect practice of putting off the solution of problems that have emerged in supplier-purchaser relations to a later time. The result of his is that in carrying out production tasks during the course of the year, the solution of individual problems is undertaken too late; this has frequently made it impossible to provide required materials and has occasioned a number of well-known negative consequences for overall production efficiency.

A tendentious interpretation of the relevant provisions of the Economic Code, to the effect that the suppliers fulfill their supply obligations whenever they supply products at the level of

the previous year—even though such a regulation doen not actually exist. On the contrary, the provision in question (par. 166) stresses primarily the suppliers' responsibility to supply the national economy, while they are only secondarily to "take account also of the average size and makeup of previous deliveries to all purchasers." Such a willful interpretation is illogical in view of the dynamic development of our economy and has antisocial consequences.

Delayed solution of problems which arise from the fact that the capabilities of the national economy make it impossible to meet the required volume of deliveries for certain finished products and materials. The experience for 1979 indicates that it was clear at the very beginning of the year that it would be impossible to meet fully the requirements for certain materials which were in demand. However, purchaser organizations did not adapt to this objective necessity and did not designate priorities specifying the purposes for which limited supples should be used, frequently even using them for the production of less-important products. A typical example is the use of alphalt in construction without regard for the priority of projects.

Insufficient smoothness of production and delivery and failure to respect society's needs in production activity. As is well known, at the beginning of last year, power-related causes led to a relatively large drop in output. Even though this drop was gradually eliminated during the year, this was achieved by an increased production focus on products advantageous to the enterprises without regard to purchasers' needs, which had an unfavorable effect on the interconnections worked out in the state plan. This is indicated by the fact that on one hand interruptions in the supply of products occured on a wider scale, while on the other hand production stocks increased by roughly 6.5 percent over the 1978 level and grew considerably faster than overall output. Turnover time increased by roughly 2 days over 1978 and exceeded the planned level.

Nonobservance of progressive connections between output and material consumption included in the state plan. The state plan assumed that consumption indicators would be updated for both material conservation and the individual material balances—this was a precondition for its achieving balance. This meant that the updated indicators were to be developed within the enterprises into specific efficiency—improvement measures aimed at tightening consumption norms. The experience in 1979 indicates that it was this development into specific form which was the weak aspect of the economic plans, leading in a number of production activities to greater energy and materials consumption than called for by the plan.

Evasion of contract relationships by the supplier enterprises. In spite of the policy mapped out by the 15th KSC Congress and the unambiguous provisions of regulations (Economic Code, Announcement No 33/1975 in the "Collection of Laws," or CSSR Government Announcement No 15/1978), the number of contract relationships between producers and purchasers did not increase in 1979; on the contrary, by not entering into agreements the suppliers avoided responsibility for observance of contract conditions, quantities, assortment, quality, delivery schedules and the like.

Utilizing the Plan Assignment Period

The above facts indicate that it was at the beginning of the year, at the time when the plan was being broken down and worked out in detail in the economic plans of the economic production units and enterprises, that we failed to take all necessary steps for consistent material support of the plan. We felt the consequences of this throughout the year. Accordingly it is an urgent task to learn from previous shortcomings and make full use of the coming days and weeks for consistent solution of all questions connected with furnishing the materials for planned expansion.

Already now, when we are working out the definitive enterprise plans, we must effect complete coordination between production tasks and their material support. This requires in particular that the following conditions be created:

- 1. In the case of manufactured products which are balanced centrally, i.e. in the state plan, or by the relevant ministry or VHJ plans, the delivery conditions should be made more specific, on the basis of approved limits and their apportionment to the individual organizations, as regards the necessary variety, quality, delivery schedules and the like. To the maximum extent possible, these discussions should end in the conclusion of supply agreements.
- 2. For other manufactured products, deliveries should be definitively agreed upon between the individual enterprises for the entire year, including relevant terms. Here too it is desirable that all the most important raw materials and other materials should ultimately be supplied on the basis of agreements, which would provide the basic precondition for smooth production.
- 3. It is particularly important to bring these discussions to a conclusion for all products and not to leave problems unsolved. However, this requires a more consistent approach on the part of the purchasing enterprises themselves; and when satisfactory solutions cannot be achieved at the enterprise level, they must join in arranging the supplier-purchaser relationships of the parent VHJ or ministry. It must be the ambition of each enterprise and VHJ not to start 1980 with unsolved problems in the area of materials ability for production.

It is true that this principle also holds for the planning organs, which must help solve problems—in regard to products balanced in the state plan, particularly in the case of new unforeseen circumstances of fundamental importance, such as failure to achieve planned initial stocks as a result of nonfulfillment of deliveries in 1979, lower-than-planned shipments as a result of conclusion of annual protocols on substitution of goods, and the like. This is the case, for example, in the Slovak wood products industry.

4. Thus the current situation requires a fundamental change in producers' attitudes toward the needs of the populace. Accordingly, I think that the leading workers at the various management levels should make a conscientious and detailed analysis of the degree to which they are satisfying the requirements of their purchasers as regards quantities and variety, and thus how they are fulfilling their obligations to supply the national economy. In no case should they incorrectly interpret the Economic Code and limit their responsibilities to the level of last year's shipments. For the dynamic development of the national economy entails an expansion of production not only by the purchasers but by the producers as well.

It will also be necessary to alter views on the development of supplier-purchaser relationships through economic agreements, in view of the fact that in the Seventh Five-Year Plan we expect to supply all our production by means of performance agreements binding on the suppliers. Thus each producer must be aware that he is at the same time a purchaser and may not act one way as supplier and another way as purchaser.

5. Purchasers too must help by participating in the consolidation of material relationships. Of top priority at present is the need to improve management work at all organizational levels when it is clear that suppliers cannot completely meet all needs. In such cases it is required that the management organs designate an order of importance according to which different types of production or activities may use raw materials or other materials that are in short supply. This must be done in terms of the needs of the society as a whole rather than from an enterprise standpoint. This will represent a tangible display of conscientiousness and a party-spirited approach to the solution of economic problems.

Finalizing the Plan by Making it Specific.

No less important a task of the consumer enterprises is that of breaking down the material assignments incorporated in the state plan in differentiated form for the individual units within enterprises by updating consumption norms, improving evaluation of materials, decreasing shipment and storage losses and the like. This task too is a pressing one, and the enterprises must embark on it now at the beginning of the year so that enterprise plans will be definitively supported by specific materials conservation measures.

We are at the time when the enterprises' 1980 plans, on the basis of which production development for the entire year will be organized, are being put into final form. Moreover we have taken note of the fact that fuel, energy and raw materials in general are increasingly becoming limiting factors in further development worldwide, a fact which is even more evident in our own conditions. Fundamental solution of the problems of providing sufficient materials for planned expansion accordingly is a first-priority task of all management levels. This requires a change from the previous approach and methods of solving such problems so that each enterprise will have assured its production activity of the necessary raw materials and other materials at the very beginning of the year, when it concludes its plan.

Specific arrangement of supplier-consumer relationships is a requirement for smooth, rhythmic, proportional development of production and thus for successful production plan fulfillment. Our legal regulations provide the necessary bases for discussion, not only with respect to products which are balanced at the individual management levels, but also for other raw materials and products. All that is needed is that the suppliers make it possible to discuss all relationships in proper order. Accordingly, in judging an enterprise's activity, the decisive factor will be not plan fulfillment in overall or gross output terms, but instead its orientation to structure, assortment, quality and time of deliveries in such a way that its production must successfully satisfies society's requirements, whether the deliveries be for internal consumption or for shipment abroad.

It is essential that much more emphasis be placed at all management levels on internal coordination, on material and technical support for the goals of the plans, and on precise fulfillment of commitments between enterprises in the spirit of the principles which were enunciated at the 14th session of the KSC Central Committee.

MONETARY PLAN FOR 1980 OUTLINED

Prague HOSPODARSKE NOVINY in Czech 7 Mar 80 p 2

[Article by Karel Hajek of the CPCZ Central Committee: "The Monetary Plan"]

[Text] The monetary plan, in accordance with law no. 145/1970 of the Laws of the Czechoslovak Socialist Republic, is an indivisible part of the system of national-economic plans, and the CSSR government approved it for 1980 with its resolution no. 313/1979. Together with all of the CSSR federal budgets for 1980 and the federal development plan for the national economy, it provides the fundamental normative groundwork for executing the party's economic policies this year.

The monetary plan, which the Czechoslovak State Bank drafts in three basis monetary divisions, has the following goals for 1980:

In the area of monetary relations with the enterprise sphere it demands that the enterprise sphere fully utilize its own resources in optimizing operating and capital requirements. Assuring the fundamental concept of the CSSR monetary plan, which consists in strengthening the generation of domestic sources of credit funds and decreasing the participation of foreign sources, requires that the growth of operating credits not exceed 7 percent, that stock turnover be accelerated by a day and that resources amounting to Kcs 2.5 billion now tied up in reserves thus be freed.

At the same time, however, the monetary plan also considers the [need to] increase inventories in domestic trade, in the housing organizations and in agrocomplex organizations at the required level of quality and selection.

The Czechoslovak State Bank will grant operating credits chiefly for increasing reserves in agriculture, for supplementing stocks of consumer goods in domestic trade, for the needs of foreign trade organizations, for supplementing below-plan reserves in industry and for the nuclear program of the Federal Ministry of Metallurgy and Heavy Engineering.

Investment credit growth will not exceed 5.5 percent, while the agreed upon credit repayments [schedules] will be adhered to and credits will be used for programs of demonstrated effectiveness, consistent with the principles of banking credit policy. This assumes an increase from the 1979 level in the share provided by the enterprise sphere in financing capital construction and that the investment plan will be fulfilled with respect to volume and planned structure. The period of construction should shorten by two months.

The monetary plan anticipates that new investment credits will be pumped primarily into expanding the chemical and consumer goods industries, developing the foundations of the fuel and power industries, expanding housing construction and truck and automobile production.

Adhering to the targets of the monetary plan in relation to the enterprise sphere will be a demanding task primarily because some departments do not see to it that the targets of the directive for lowering costs and creating profit are met, and then these deviations show up in the form of pressure to provide above-plan credits. The target of accelerating stock turnover is also very progressive in view of certain tendencies in production (a slow rate of innovation, the low quality of some products, deviations from the planned profit of production) and the progress to this point (during the first four years of the Sixth Five-Year Plan the turnover of reserves has slowed by 0.3 days). Likewise in capital construction there have survived some negative tendencies from years gone by (lags in putting new capacities into operation, lack of design preparation, not adhering to planned levels for new capacities, etc.) and this increases stresses on the monetary plan. The means of resolving problems of capital investment is set forth in resolution no. 23/1979 of the CSSR government, which covers all phases of the investment process from planning through the review by experts all the way up to preparation and execution. Insuring the planned development in 1980 requires that the credit policy of the Czechoslovak State Bank be oriented toward

- --increasing the effectiveness of production,
- --enforcing the application and consistent adherence to the newly established norms for the consumption of materials,
- --enforcing the principles of material self-interest in improving the quality of products,
- --assisting increase supplies of consumer goods for export and the market funds,
- --and contributing to improving the utilization of production funds, shortening the time necessary to put new production facilities into operation, shortening the shake-down period for these, and improving convertability.

In the area of monetary relations to the population, the CSSR monetary plan takes the federal plan as its starting point and continues with the planned balance of incomes and expenditures of the populace.

The monetary plan counts on the population increasing its rate of savings and further, that in social incomes there will occur a growth linked with demographic development, the rise in the employment rate and the predicted rise in the average wage. Loans to citizens, which next to travel, moving and other such forms of compensation form the main component of other [forms of] income for the population, will continue this year to be made according to existing principles of credit policy.

Out of the planned growth in monetary incomes for 1980 the population would have to use over a quarter of it on increased costs for services and nearly half for higher retail costs. The uninterrupted satisfaction of consumer purchase demands requires above all that deliveries be filled in volume and suitable selection, which will make planned sales and increased stocks possible in the trade [sector]. Fulfilling this task, together with insuring harmony between wage increases and labor productivity, will guarantee that voluntary savings deposits will increase and that the economically necessary increase in the amount of money in circulation will be created.

In the area of monetary relations with foreign countries the monetary plan makes optimal use of foreign sources of credit funds for solving problems in the Czechoslovak economy and in accordance with the goals established by the state plan.

The goal of gradually reducing the participation of foreign resources (credits) in financing the needs of our economy is tied to improving exchange rates, securing the planned export funds in quantity, selection and quality, and achieving the maximum savings in imports.

Foreign resources are earmarked primarily for grain imports and other products for the agrocomplex, as well as indispensible machinery and equipment. The foreign resources obtained for our economy are divided up in the most expedient way possible, and their koruna cover in the monetary plan is tied to funds which in the course of the plan's realization are freed as needed for items demonstrably connected with obtaining the foreign resources specified by the plan.

The foreign exchange plan that is an element of the CSSR monetary plan in relation to socialist countries proceeds from the more rapid harnassing of our economy to the international division of labor and achieving overall better results than the directive for 1980 originally prescribed.

The problems of our economy are concentrated in the area of relations with nonsocialist countries. In drafting the plan for 1980 it was necessary to resolve unrealistic demands on imports, specifically [those] from

nonsocialist countries, and simultaneously the insufficient export capability of certain production branches.

The strain on the foreign exchange plan must necessarily be gradually decreased by applying the extra amounts resulting from higher than planned export prices to the greatest extent possible to the balance of payments, and as a result the export targets will be met not only in FOB prices but in wholesale prices as well. VHJ's will have a stake in exceeding export targets to nonsocialist countries in FOB and wholesale prices alike. To the maximum extent possible we should increase the portion of machinery and equipment imported from nonsocialist countries that is realized in the form of foreign exchange return credits. What will also contribute to lessening the stress is that the forms of foreign resources made available will be diversified and that the portion of supplier credits received will grow.

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TOURISM IN CSSR DISCUSSED

Prague HOSPODARSKE NOVINY in Czech 26 Feb 80 p 5

[Article by Ing. Karel Spal, CSR Deputy Minister of Finance: "An Unusually Dynamic Field"]

[Text] Tourism is one of the fields which has been going through a dynamic development all over the world for quite a long time. The numbers of foreign as well as domestic tourists are growing and, in addition to the traditional ones, there appear to be new objects of their interests. Tourism is becoming an increasingly important part of the way of life and is one of the indicators of the living standard. Its rapid growth can be expected to continue in the future. This also applies to the CSSR, where the population is already spending some Kcs 32 million for tourism every year.

During the years from 1950 to 1978 the revenue from foreign tourism world-wide grew from \$2.1 billion to \$65 billion, which puts it into second place in the world after crude oil trade. It is also worth mentioning that during the years from 1966 to 1972 foreign tourism grew faster than the world exports; the statistically registered slowdown in the years 1972 to 1976 was caused mainly by the high increase of crude oil prices and its products. Since 1976 world tourism has again surpassed world exports.

The socialist countries, including the CSSR, have also experienced a rapid growth of tourism. The CSSR is one of the socialist countries where tourism has reached a high level.

The following table shows the growth of numbers of participants in domestic tourism (in millions):

1971	1975	1978	Index 1971-78
117	149	168	143.6 percent

The above table indicates that in 1978 every citizen of the CSSR took part in 11 domestic tourist trips.

The foreign tourism figures, however, have also reached a high level: 19.4 million foreign tourists visited the CSSR in 1978 and 10.9 million CSSR citizens departed to visit foreign countries. These figures represent a manifold increase compared with the preceding years, as shown by this table:

Year	No. of persons who arrive in the CSSR (in millions)	No. of persons who departed from the CSSR (in millions)
1971	4.7	2.4
1975	13.9	7.4
1978	19.4	10.9

The expansion of domestic as well as foreign tourism is one of many proofs of the constant growth of the overall living standard of the citizens of our socialist country. At the same time it is also a concrete verification of the realization of the conclusions of the 1975 Helsinki Conference for European Security and Cooperation in Humanitarian Sphere, at which the participants agreed to develop mutual understanding through tourism.

An analysis of the growth of the tendencies of the standard of living and evolution of the population's income and personal consumption indicates that tourism in the CSSR will continue to expand. The number of participants in domestic tourism in 1990 is being estimated at about 22 million. With regard to foreign tourism, it is calculated that 22.7 million foreign tourists will visit our country and 11.9 million citizens of the CSSR will travel abroad.

The development has to be studied in order to create the best possible tourist provisions, as well as to take advantage of the situation, especially in the economic field.

The Main Prerequisite: Accommodation Capacities

One of the most pressing problems in development of tourism is the question of providing adequate sleeping and eating accommodations. In spite of the fact that in the CSSR hotels, motels, tourist lodges and motor campings (the so called free tourist accommodation capacities) there were in 1978 more than 156,000 available beds, while the spa recreation centers and industrial recreation centers (the so called controlled tourist accommodation capacities) had some 267,000 beds at their disposal, these accommodation capacities were not sufficient to meet the demand, especially during the peak tourist season and at places of special tourist interest. This situation exists despite the fact that during the period from 1970 to 1978 there was an increase of 36,000 beds in the free tourist accommodation capacity and 35,000 beds in the controlled tourist accommodation capacity.

The above mentioned increase in tourist accommodation was made possible mainly by considerable financial support from the tourist fund. During the Fifth Five-Year Plan, for instance, the tourist fund provided Kcs 587.4 million for this purpose and Kcs 404.7 million during the years from 1976 to 1978. These figures represent some 75 percent of the fund's total expenditure, which means that tourism was paid back a large portion of the difference between the official rate of exchange and the actual selling rate which the CSSR citizens pay for foreign currencies when they travel to nonsocialist countries. However, this source of revenue does not cover all the fund's financial needs and so the CSR Ministry of Finance allocated it additional subsidies, which since 1971 have reached the total amount of Kcs 451 million (in the CSR).

The CSR Ministry of Finance plans to continue giving this aid to the tourist fund. However, it should not be considered the main or the only means for financing construction of additional tourist accommodation capacities, which appears to be very urgent with regard to future development. However, because of priority assigned to population facilities, the number of tourist sleeping and eating accommodations developed in actions "Z" and financed by the tourist fund has been gradually decreasing during the past two or three years, and it would not be realistic to expect that this could change during the Seventh Five-Year Plan.

The situation is likewise not favorable with regard to actions contemplated within the framework of planned investments. Shortage of construction capacities is causing prolongation of the construction time and in some cases even indefinite postponements. Deliberations concerning future development of tourist facilities indicate that the situation is not going to improve during the Seventh Five-Year Plan, because priority will have to be assigned to solving problems of fuel and energy, nuclear program, apartment construction, etc.

In this situation it would also seem advisable to thoroughly analyze and evaluate possibilities of constructing the kind of tourist accommodation facilities similar to those being used in many of the other socialist countries i.e., by utilizing the services of foreign enterprises. Because not only the theoretical calculations but also the achieved practical results show that from the economic point of view these deals proved to be advantageous.

Principles of Modernization

Another way of solving, even if only partially, the unfavorable tourist accommodation situation, is to improve the quality of the existing sleeping and eating facilities. To this end the CSR Ministry of Finance in 1976 issued regulations for carrying out and financing modernizations of facilities in the category of free tourism. These regulations permit modernization of tourist accommodation facilities costing up to Kcs 10 million, without regard to the original cost of the facility.

So far we have had a good experience with practical application of the modernization regulations. During the years 1977 to 1979 modernization work was started on 109 facilities of which 58 have now been completed. It is planned that in 1980 modernization work will start on additional 35 facilities. When completed, the modernization will have improved the quality of the facilities as well as services. In several cases the modernized facility could be moved up into a higher price group or a better category; in a few cases, the facility would have to be closed down if not modernized. Another plus value of modernization is that the parameters governing sleeping and eating accommodations have become harmonious with the regulations for work safety, hygiene, trade unions requirements, etc. The combined benefits in most of the facilities resulted in higher receipts.

The only pity is that modernization has not been used more extensively. Unfortunately, the main reason here again has been the suppliers' failure to back up the actions which the investment planners managed to arrange only with great difficulties. In some cases it was also the question of lack of activity in looking for realization possibilities. This is evident from the difference of the value realized by the individual ministries and that realized by the Regional National Committees.

One Dollar for Kcs 11 - 12

The special attention being paid to accommodation facilities as the most important prerequisite for development of tourism is also justified by the economic aspects. The statistics show that the direct as well as indirect expenditure for tourism by the population is growing faster than expenditure for services, and its share of the overall income and expenditure is growing significantly too. While in 1970 the CSSR population spent Kcs 13.7 billion for tourism, in 1975 the figure was already Kcs 26.1 billion and Kcs 31.8 billion in 1978.

Even more significant are the economic benefits derived from tourism, perhaps not so much with regard to the amount of money it brings in, but more so with regard to the conditions under which the foreign currencies are being earned. This is especially true about the organized tourism with the nonsocialist countries from which the yearly production of U.S. dollars is 60 million. Although it is difficult to figure out exactly how much it costs to earn one U.S. dollar in foreign trade or in tourism, a comparison indicates that it is easier to earn foreign currencies in tourism.

The commercial results of our travel agencies support this conclusion. The so called "production costs" (i.e., the relation between the amount spent in Czech currency and the amount of foreign currency received) to earn one U.S. dollar by the travel agencies Cedok, Rekrea and Sportturist in 1975 were somewhere between Kcs 10 and 16. Since then the differences among the travel agencies somewhat leveled out, and because a reduction

of production costs also took place, the result was that in 1978 the production costs to earn one U.S. dollar were betwee Kcs 11 and 12.

The achievement of these favorable results was facilitated by the fact that the CSR Ministry of Finance started to follow and check the "production costs" figures. This arrangement was introduced to increase the effectiveness in the non-commercial field of payments. Another reason also was the need to coordinate the commercial activities of the travel agencies in order to eliminate mutual price undercutting on international markets and to coordinate the active and passive categories of tourism.

The supervision of the production costs figures will continue during the Seventh Five-Year Plan and efforts will be made to enhance the role of this arrangement. A possibility is now under consideration to use the figures as one of the factors for assigning tasks in the area of foreign currency earning. For the same reason, work is now in progress to resolve certain methodical problems in order to achieve comparability of the figures.

Supervision of the economic aspects is also performed in the category of passive tourism and the purpose is to establish and evaluate the so called "foreign currency valorization", which formulates the relation between the amount of foreign currencies spent and the amount of domestic currency received for each foreign tour sold to citizens of the CSSR.

Establishment and evaluation of these figures is a part of the special attention now being paid to the economic effectiveness of tourism, especially to the category of active tourism and its profitability from a foreign currency standpoint. As shown by the discussion of these questions by the CSR government, a number of ways exists to increase this economic effectiveness, starting with enlarging and improving the quality of services, giving preference to organized tourism before private trips, and ending with utilization of available instruments in the sphere of pricing policy, commercial-political rules, etc.

There is no doubt that there is a potential for further increase of economic gains from tourism and that all possibilities have not been utilized. And equally important also is that a number of existing ideas and suggestions in this field should be concretized and materialized.

In my opinion, during the Seventh Five-Year Plan it will, therefore, be necessary to create conditions, both in the plan and in the system of planned management, under which the share of tourism in earning foreign currencies could expand and thus increase its overall contribution to the national economy.

9454

ENVIRONMENTAL PROBLEMS OF PRUNEROV POWER PLANT DISCUSSED

Prague LIDOVA DEMOKRACIE in Czech 11 Mar 80 p 2

[Article: "Five 200 MW Units at Prunerov--An Eight Billion Crown Investment--Fly Ash Problems"]

[Text] It is impossible to miss the Prunerov power plant in North Bohemia. The only information needed is that it is located somewhere between Chomutov and Kadan without even suspecting that it is situated right next to the state highway leading to Karlovy Vary because it is visible from faraway. Vapor plumes, steaming as if out of nowhere from the cooling towers of the units, form an impenetrable curtain in the open countryside, a sure sign that the hitherto invisible destination is only minutes away.

And that is only the Prunerov I power plant; 6.x 100 MW turbines already generate power. Its younger and at the same time "bigger" brother is still under construction. The last of five 200 MW units will begin operation in about 26 months.

Prunerov II is also the last of the large thermal power plants to be built. This is definitely true of North Bohemia which after all already has a lot of power plants: Ledvice, Tusimice, Ervenice, Pocerady, to name only the best known plants—and in the foreseeable future no other 1000 MW giant will be built anywhere else either because it is no trifle: building such a giant represents 6 year's work for a number of enterprises and the capital investment exceeds 8 billion crowns (and a billion more if the design costs are included.)

Czech-Polish Cooperation

The construction project is divided in two parts. The first one which—according to Eng V. Kovanda, the Prunerov II power plant project manager from the national enterprise Armabeton—is "behind the fence" belongs to Budimex Elektrim Konsorcium Company. The Polish supplier started construction in June 1977 and is responsible for practically everything connected with the actual generating facilities of the power plant. It is a project to be handed over ready for operation which means that Polish

enterprises have assumed responsibility for the construction and for meeting the completion deadline. It is up to them whether the individual units will go into operation according to the time schedule. The first unit should begin generating power as early as the beginning of next year.

Of course, there is also the second part of the Prunerov "twin." That is the part which is located outside the confines of the power plant complex. While, judging by the amount of capital investment and the extent of labor input, this project is only "in second place" it is no less important because without housing for the labor force, the supply of raw industrial water, fly ash settling ponds and other auxiliary facilities the new power plant could not even start operation. And it is this complex of projects for which the Kadan enterprise of the national corporation Armabeton is responsible as the main contractor.

Meeting Construction Schedule Deadlines

The Kadan Armabeton workers must meet more than a few important deadlines this year. Indeed, the first has already passed. The completion of the industrial water supply pipeline for the power plant was due [to be ready] by 28 February. Water is now being supplied temporarily from a source in the foothills of Krusne Hory but the planned 800 millimeter pipeline which will draw water from the Ohre River is already in the ground. Currently two pumping stations and a compensating water tower are being built on this line. A whole series of "completion days" lie ahead in midyear and also towards the end of the year before the trial run of the first unit is started. According to Eng J Zezule, the enterprise's manager, the work schedule is being complied with so far. The shortage of labor causes some concern.

The construction of dams, of so-called sludge ponds, where fly ash from the power plant intercepted by filters settles out, is a chapter by itself. Each year, three "local" power plants, Prunerov I and Tusimice I and II produce some 4.5 million cubic meters of this fly ash. (In the future, when the Prunerov "double unit" begins operation, this quantity will increase by additional 2 million cubic meters.) The problem is what to do with the fly ash. The sites where it is being deposited represents receptacles of sorts formed by 10 meter high dams. But these will not keep forever. To keep on raising the dams is all that can be done, practically to the maximum limit possible.

But there is a hitch: building a dam which would hold a million cubic meters of fly ash requires about hundred thousand cubic meters of earth. And in some cases raising the dam would provide room for only a 3 to 4 months supply of fly ash. The necessary translocation of various streams, water supply lines and other such work constitutes additional expense and in the end the cost of disposing of a ton of fly ash comes higher than the mining of the same amount of coal. Only, without this hinterland the power plant could not remain in operation. And this cannot be allowed to happen for obvious reasons.

Therefore, it is evident that building a power plant is by far not limited to just the power plant. The above "auxiliary" investments include also the disposal of slag, the construction of a training center (this facility is temporarily used as housing) and other construction projects which may be several kilometers away from the power plant but which are indispensable for its operation. The tasks in the construction of Prunerov II assigned to the Kadan Armabeton do not amount to billions of crowns even though the cost is almost one billion. Nevertheless, they are no less important and, just as the construction and completion of the actual generating unit, their fulfillment will determine whether the final deadline will be met.

8664

NEW PROCESSES MAKE REFINING OF INTRACTABLE ORE POSSIBLE

Bratislava PRAVDA in Slovak 22 Jan 80 p 5

[Article by Eng Alexander Preus, Federal Ministry of Metallurgy and Heavy Engineering: "Route to Precious Ore Found"]

[Text] In Czechoslovakia there occur several types of ore which in terms of their composition and occurrence are unique in the world. One of these is tetrahedrite ore, which contains copper, antimony, arsenic, silver, bismuth, sulfur and mercury. The interactions of these metals in existing metallurgical processes have made it impossible to smelt the ore. A way of solving this problem has been intensively sought since 1890, when the Hungarian government announced a worldwide contest for suggestions for a suitable process. Only a single suggestion was forthcoming, from the Siemens company, which however was rejected as unsatisfactory.

Ninety years' research on this problem has now come to an end, because the efforts of our investigators have perfected two processes which are suitable for the processing of this type of material.

The first process, which was developed by the Institute of Ore Prospecting in Prague, jointly with the iron mines of Spisska Nova Ves, can be characterized as a pyrohydrometallurgical beneficiation process. This yields products which can be further refined using ordinary metallurgical methods.

The other process, which was developed by research workers of Zavod SNP in Ziar nad Hronom in cooperation with the Research Institute of Metals in Panenske Brezany, provides a higher level of "direct finalization," i.e. the process design includes more metallurgical elements leading to production of the metals in final form.

The collegium of the Ministry of Metallurgy and Heavy Engineering gave unusually high marks to the researchers' efforts and selected the process proposed by Zavod SNP Ziar nad Hronom for implementation. The route to utilization of our country's great natural riches is thus opened.

This matter has a political side as well. After many years of unsuccessful efforts, two collectives were organized, ready to fulfill consistently a directive of the 15th KSC Congress calling for intensive utilization of domestic sources and their application to specific activities. The very makeup of these collectives attests that they have grown up as a result of unity of thought and conviction, rather than administratively. This is why the collectives employ both rank-and-file researchers and enterprise managers and general directors with their staffs. In spite of the fact that everyone in the collectives knew from the outset that the decision could be in favor of only one of the processes, there developed a spirit of friendly cooperation and an atmosphere of mutual criticism. I could take this occasion to name dozens of comrades from both collectives who gave large amounts of selfless work. The basic fact, however, is that even as they solved this problem, these people grew professionally and politically and showed that they wanted to solve problems rather than merely putting in the time.

This example shows that purposeful and concentrated activity and a readiness to implement thoroughly the party's decrees make it possible to solve even seemingly impossible problems rapidly. The importance of the results obtained is underscored by the fact that the solution was found at a time of worldwide struggle over utilization of all types of raw materials.

9427

STATE BUDGET PLAN FOR 1980 PUBLISHED

East Berlin GESETZBLATT DER DEUTSCHEN DEMOKRATISCHEN REPUB® in German Part I No 45, 29 Dec 79 pp 462-463

[Official text of "Law on the 1980 State Budget Plan of 21 December 1979"]

[Text] In agreement with the 1980 economic plan the People's Chamber of the German Democratic Republic enacts the following law on the 1980 state budget:

Article 1

The revenues and expenditures of the state, the state budget plan of the German Democratic Republic and the funds of VEB's, state combines and VVB's [associations of state enterprises] are confirmed as follows:

Funds of VEB's, State Combines and VVB's from Earnings	State Budget Plan	Revenues and Expenditures of the State	
	million marks		
19,990.3 19,990.3	155,404.5 155.339.5	175,394.8 175,329.8	Revenues Expendi tures
	65.0	65.0	Excess of revenues over expenditures in 1980
-			*************

Article 2

Confirmed as main items of revenues and expenditures of the 1980 state budget are the following:

Mi	114	m	Me	rks
8.44			0.0	-

	Revenues	Expendi tures
State economy (excluding agriculture, forestry and foodstuffs industry)	111,401.9	36,482.8
State and cooperative agriculture, forestry and foodstuffs industry	5,109.0	11,035.0
Academy of Sciences	205.6	733.2
Maintenance of traffic routes	-	2,961.1
Taxes and levies	13,295.7	-
Housing construction and administration	-	7,052.4
Including: Complex new housing construction Modernization of housing units Building repairs of existing housing stock Administration of housing units in- cluding the assurance of stable rents for the public Interest and repayment of investment loans for new housing construction		(1,858.9) (215.0) (1,285.0) (1,711.3) (1,982.2)
Replacement and expansion of the basic assets of cultural-social and educational facilities outside complex new housing construction		1,339.0
Price subsidies for consurer prices, fares and services to the public		16,391.5
General education	374.5	7,025.2
Universities and technical colleges	265.3	2,053.0
Vocational training	5.9	826.4
Adult education	31.7	103.3
Health and social care	6,450.3	9,539.9
Including: Social security payments for services rendered by the health system	(5,207.4)	
Loan exemption for young married couples and interest exemption for drawing on a loan amount		200.0
Social security and other state welfare services	15,420.3	29,401.9

Million Marks

	Revenues	Expenditures
Youth facilities	26.6	107.5
Culture	448.7	1,562.6
Sports	108.7	367.8
Recreation and vacation services	77.1	388.4
Foreign travel		255.0
Radio and television	500.4	701.7
Communal measures and services	148.0	797.1
State appearatus and economy managing organs	258.1	3,746.3
Foreign affairs	•	107.6
National defense	-	9,403.0
Public safety, administration of justice and security of the state borders		3,683.0

Article 3

For the further improvement of the material and cultural standard of living of the people the state budget makes available M52,267.1 million as social funds, taking into account the main items of revenues and expenditures as per article 2.

Article 4

(1) The central budget plan is confirmed as follows:

Revenues M120,828.8 million Expenditures M120,763.8 million

(2) The budget plans of social security as an independent element of the state budget within the central budget are confirmed as follows:

Blue and White Memi Collar Workers Coop

Members of Socialist Production Cooperatives and Other Working Strata

million marks

Revenues	13,534.7	1,583.5	
Expenditures	24,903.5	3,459.6	
Subsidy from the state budget	11,368.8	1,876.1	

Article 5

(1) The budget plans of Berlin, the capital of the GDR, and of to .rks are confirmed as follows:

	Revenues and Expendi-		g: Proportions in I Revenues of the	Cash in Hand on 1 January 1980 1980		
	tures	Total	Earmarked for Investments			
	million marks					
Berlin	3,737.9	2,370.6	571.9	39.0		
Cottbus	1,845.4	1,161.0	193.9	16.0		
Dresden	3,357.9	1,865.1	313.3	36.0		
Erfurt	2,353.2	1,415.2	240.0	24.0		
Frankfurt (Oder)	1,594.8	1,074.8	151.8	13.0		
Gera	1,482.4	908.3	151.6	16.0		
Halle	3,328.1	1,947.2	287.9	33.0		
Karl Marx Stadt	3,456.8	1,831.3	325.0	33.0		
وامتراها	2,639.1	1,472.9	229.2	27.0		
Magdeburg	2,599.2	1,562.5	239.6	27.0		
Neubrandenburg	1,478.8	1,031.1	124.2	19.0		
Potsdam	2,234.5	1,317.0	202.8	24.0		
Rostock	2,046.5	1,314.9	165.1	22.0		
Schwerin	1,380.0	891.8	148.9	16.0		
Suh1	1,041.1	605.2	81.3	11.0		
Total	34,575.7	20,768.9	3,426.5	356.0		

⁽²⁾ The local people's representations finance their plan assignments from

⁻⁻ Payments by subordinated enterprises, revenues of their organs or subordinated facilities;

- -- Taxes (excluding wages tax) and local taxes;
- -- Their share in the total revenues of the state budget.
- (3) For the effective encouragement of socially useful citizen initiatives regarding the all-round fulfillment and purposeful overfulfillment of the plan, the communities and kreis-subordinated cities have at their disposal the resources and funds of the local people's representations as well as other sources of income in accordance with the legal regulations, in order to assist the organization of social life and the improvement of working and living conditions.

Article 6

As per article 4 of the law of 13 December 1968 on the state budget system of the German Democratic Republic (GBL I No 23 p 383) the Council of Ministers decides the amendments to the 1980 state budget plan required for plan implementation. The surplus fixed in article 1 of revenues over expenditures may not be altered.

Article 7

The Minister of Finance issues implementing regulations.

Article 8

- (1) This law takes effect on 1 January 1980.
- (2) Losing effect at the same time is the law of 15 December 1978 on the 1979 state budget plan (GBL I No 42 p 462).

The above law, enacted by the People's Chamber of the German Democratic Republic on 21 December 1979, is proclaimed hereby.

Berlin, 21 December 1979

The Chairman of the Council of State of the German Democratic Republic

E. Honecker

INVESTMENT PATTERN, TECHNOLOGICAL PROGRESS CRITERIA EXAMINED

West German Commentary

Bonn IWE-TAGESDIENST in German No 28, 20 Feb 80 p 3

[Report from Berlin: "SED Criticizes Industry's Wrong Investment Decisions."

A translation of the East Berlin EINHEIT article cited below follows this commentary]

[Text] EINHEIT, the theoretical organ of the SED, has criticized the GDR industry's wrong investment decisions. Often when there was talk about greater speed in rationalization and reconstruction needed and replacing obsolete installations it was by no means a matter of good intentions that were amiss but rather that material possibilities were short. Equipment and construction capacities were lacking. And frequently also the term "export" was used, meaning that the GDR was exporting so many machines that not enough remained in the country for the greater speed desired in replacing the equipment. Yet, the party journal explained, not export was to be blamed for that material conditions often were inadequate for accelerating the replacement process, but mainly rather too high a share of investments for expansion. Still more resolutely containing the extensive tendencies in the GDR economy had become a "key problem" in raising the efficiency of the economy and, hence, of economic growth. (EINHEIT, No 2, 1980).

Economic Growth Rate Determinants

East Berlin EINHEIT in German Vol 35 No 2, Feb 80 signed to press 15 Jan 80 pp 121-128

['Material-Technical Basis' feature article by Prof Dr Gudrun Langendorf, lecturer, and Prof Dr Harry Nick, research program director, both at Institute for Political Economy of Socialism, Academy of Social Sciences, SED Central Committee: "Scientific-Technical Progress and Material-Technical Basis"]

[Text] The SED Central Committee at its 11th plenum stressed the extraordinary importance attached to further strengthening our material-technical basis in implementing our party's economic strategy today and in the
future. This role of the material-technical basis stems from the fundamental interaction between the development of the productive forces, the
production relations and the social superstructure in the process that
shapes the developed socialist society. I is furthermore significantly
conditioned by the concrete reproduction conditions which have been significantly altered, mainly by the upward leaps and bounds of the world
market prices for raw materials and energy sources.

This—as Comrade Erich Honecker explained in his Politburo report to the 11th Central Committee plenum—requires that an economic development strategy be established and purposefully implemented that conforms to these altered reproduction conditions. "Economic efficiency improvements can no longer be organized by the ways and means of the early 1970's." This strategy's focal point lies on rigorously improving the effectiveness of social production, of social labor altogether. Only by focusing on this strategy for total economic development can one understand why our absolute priority lies in further strengthening our material—technical bas1, why this is a matter of life and death for our people.

Economic Growth Under Altered Reproduction Conditions

Improving the effectiveness of social production means obtaining (over the long haul) optimum results per unit of economic resources. The criteria and conditions of efficiency development are thus also significantly conditioned by changes in the development of economic resources, in their reproduction conditions.

Proceeding from the two fundamental sources of material wealth—nature and labor—we get three groups of economic resources, by the development and effective use of which economic growth is directly conditioned. They are: the natural resources, i.e., raw material resources and primary energy sources in their entire scope and quality and the geological conditions for their extraction; the labor resources, i.e., the social labor capacity under its quantitative determinants and structure, with its level of skill and training, and the totality of the qualitative factors that directly affect the degree of labor efficiency such as the sense of responsibility and the interest in high production results; and the resources of material assets, i.e., the totality of society's materially embodied existence and development conditions created through human labor, our "second nature," our "artificial environment," nature changed through human labor—the material—technical basis of society.

Noticeable alterations in the development and quiddity of all these resources have taken place in the more recent past, and they are going to continue for the foreseeable future.

The raw materials and primary energy sources have become much more expensive, mainly because of the upward leaps and bounds of the world market prices. These are not just price increases of 30, 40, or 50 percent which by themselves would be quite formidable, considering the fact that we have to import circa 60 percent of our raw materials, but of 300, 400, 500 percent and more. Petroleum prices have risen tenfold on the capitalist world market since 1970, and further increases must be expected. The higher prices for raw materials and energy sources caused severe changes in the totality of our economic conditions inducing far-reaching considerations on structural policy, on the strategy for economic development altogether.

That we must expect the prices for raw materials and energy sources to rise further over the long run also results from the trend that worsens the geological conditions for the extraction of raw materials, from that it is necessary to extract from deeper strata and places hard to get to, along with which the parameters of the deposits (like the metal content of ore extracted) likewise are getting poorer.

For the development of our labor resources, especially two factors are decisive: Qualitatively, in developing the level of training and skills, great advances were made. Our going into general education 10-grade polytechnic schooling, and into vocational training for all school graduates, and the greater proportion of technical school and university cadres, have greatly elevated our people's educational and cultural level and caused a penetrating qualitative change in the totality of the subjective conditions and thus also in our economic development, of which the most effective use has to be made.

Quantitatively, we have to get ready for a reduction in labor resources—mainly in our industry, the chief producer of our material wealth. Considering that between 1976 and 1980 we created almost four new jobs for every job cut back and that this proportion has to be reversed—as the 11th Central Committee plenum has ordered—, significant changes are in the offing here too for our reproduction conditions, which will demand great efforts from us.

These objective trends that make the two first resources for economic activity—nature and labor—either more expensive or more scarce lead to one general conclusion: Economic growth must to a much greater extent in the future rely on the interaction between two processes. First we must conserve energy, material and labor much better, must do it also by means of better using what we have. And then we have to make much greater advances in developing and using those technological solutions that will lead to more of an end product per unit of resources utilization. And especially in this regard the further development of our material—technical basis is of crucial importance, especially since its development has certain characteristics that become all the more important under these altered reproduction conditions. The material—technical basis, a nature that is created or altered by human labor, possesses a significantly

higher dynamics, in qualitative and quantitative terms, than the two original resources, nature and labor.

What nature has to offer in petroleum, coal and ore is for all intents and purposes not augmentable. This is a fact which bourgeois ideology has made thorough use of in spreading its pessimistic theses on growth. Our republic's social labor capacity is not going to grow quantitatively either in the next two decades. But our material-technical basis will grow. It will grow quantitiatively, but more important is the dynamics of our material-technical basis in the qualitative respect. Technical and technological development is the most revolutionary element of the productive forces, the one that sets the standards. It alone can lend a historic dimension to our supplies in raw materials and energy sources, i.e., transform them into alterable entities. What of our raw material can actually become useable is decisively determined by the technical and technological conditions for extracting and processing our raw materials. The natural resources that are available as such thus are by no means unchangeable magnitudes allotted to us by nature for once and for all.

The scientific-technical revolution has unmistakably received new powerful impulses in recent years. That doubtless is among the most important and positive changes in our reproduction conditions. Using them rigorously and prudently exacts great efforts from us of course. There is no other factor in economic progress that demonstrates such high dynamics and has so vital an influence on all other factors and conditions of economic growth as technical and technological advance, which to a decisive extent becomes effective through the change and upward development of the material-technical basis. The most important source for this high dynamics in the material-technical basis in turn is the intellectual potential of our society that finds its most striking expression in the progress of science and the working people's innovative ideas. If on the one side the quiddity of the productive forces' embodied elements is the factor that determines the level and development of human labor as productive force, it is, on the other side, intellectual progress that becomes the crucial point of departure for technical and technological progress. Ultimately, technical progress is infinite because the progress of human cognition is infinite. This role of our intellectual potential was emphatically referred to by Comrade Guenter Mittag at the 11th Central Committee plenum.2

Translating new fruitful ideas into economic data is naturally governed decisively by objective conditions—the economic resources available, the technical-economic level of the material-technical basis in existence, the reactive capability of the economic organism and so forth. Three things are essential here:

The fruitfulness, the economic and social productiveness of the scientific idea, though not the factor in economic progress that determines the whole thing, is yet the primary determinant, the initial factor. If the research result itself—let alone the research objective—is mediocre in terms of international standards, its material realization can at best also only be mediocre.

The fruitfulness of a scientific idea is certainly by no means proportional to the effort in finding it. From this results the important circumstance that to a certain degree science is an economic potential that is independent of resources available. It means that given the same economic effort very different economic results can be achieved depending on how the intellectual wealth available is used. Simply replacing obsolete installations by models similar in kind which would waive any claim to the "gratis service" scientific progress can render, at least in part, or placing investments to enlarge a production capacity without making any systematic use of the potentials of our intellectual wealth under current conditions simply means squandering our social wealth, a luxury we cannot afford.

The material-technical basis itself must more purposefully be developed under the aspect of making it more receptive to fruitful ideas. It has to become more pliable, more inclined toward equipment that can be modernized. The most important course here would be to develop standardized and simplified partial solutions, components that can be combined into new and more efficient overall solutions, machine systems, that can absorb the latest data of scientific-technical progress.

Fundamental Tasks for Further Perfection

"Maintaining the position of the GDR as a modern socialist industrial state places growing qualitative demands on the material-technical basis. We take this into account by developing the kinds of production that conform with the scientific-technical requirements of the present and the future."3 Our strategy in further shaping our material-technical basis for all intents and purposes lies in "technically refining" the degree of our production puposefully whereby we will strengthen our position on the foreign markets. This strategy is forced upon us by the more long-term trends in the change of our reproduction conditions and by the fact that we need a higher degree of refinement of our raw materials, but not at the cost of developing laborintensive production processes. An increasing degree of refinement in our production can come only from having two groups of factors work together: the purposeful development of modern production processes that are especially important for refinement and greatly affect the general technicaleconomic level of production, and a purposeful further development of a great and efficient commodity and export manufacture in areas where we have experiences and traditions through decades.

This goes to show that the central questions in the further development of our material-technical basis, the economic dimensions of scientific-technical progress, are also today and will be in the future questions pertaining to our perfecting the structure of our economy. They include the purposeful development and application of microelectronics, electronic computers, industrial automation and ADP.⁴

Those production sectors play a key role in three respects:

They embody the most advanced qualitative changes in the productive forces of our time. Purposeful research in those directions and the development of those sectors are indispensable base lines for a modern science and production structure.

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Hardly any production is any longer conceivable today that could have a greater effect on the general technical-economic production level.

Therein also lies all the production that is indispensable for important rationalization effects in all main directions—cutbacks in jobs, reducing specific energy and material consumption.

The purposeful implementation of the scientific-technical revolution and all-inclusive socialist rationalization belong inseparably together. This is so not only because, on behalf of an optimum performance improvement in our economy, we must use all possibilities for improving our production efficiency—the large possibilities and the many small ones—, but also because the one does not work without the other. Socialist rationalization has to make the broadest use of the data of the scientific-technical revolution, help open up the fields in which they can be applied and, not last, improve their technological controls and thus reduce the cost of their application. In turn, there can be no really all-inclusive rationalization unless it includes the application of these revolutionary technical modifications. The totality of the developmental trends referred to here "actually is the centerpiece of the unified concept of increased socialist rationalization for our economy."

This dialectics between the scientific-technical revolution and an allinclusive socialist rationalization can successfully be realized only if we reach greater speed in qualitatively improving our material-technical basis. Often when there is talk about the need for greater speed in rationalization and reconstruction and about replacing obsolete installations, we hear that it is by no means a matter of good intentions being amiss but that the material possibilities are short. Equipment and construction capacities were lacking for such a tempo of rationalization and reconstruction. And frequently also the term "export" is being used, meaning that the GDR is exporting so many machines that not enough remain in the country for the greater speed desired in replacing the equipment. Given all our export requirements-and we do have to export many more machines today in exchange for importing the same volumes of raw materials than only a few years ago -- this does not strike the heart of the matter. In terms of the funds we have we by no means invest less than other countries on a similar level of economic development. That the material possibilities for accelerating the replacement processes are often inadequate is not due to export, due to an absolute equipment deficit, but mainly due to too high a share of extensive investments.

If a large proportion of the material resources included year after year in our economic cycles is invested in new construction, our material resources cannot be sufficient for speeding up the replacement processes for the existing material-technical basis. That is as logical as is the fact that creating a larger number of jobs than the number of jobs we can cut back is bound to lead to an intense manpower situation. Actually, we have neither too little manpower nor too few investments, but we rather have too many new jobs and too many new constructions. Still more resolutely containing the extensive tendencies in our economic activity has become a key problem in raising the efficiency of our economy and, hence, of our economic growth. And this is primarily so because this is an elemental

prerequisite for more rapidly introducing the data of scientific-technical progress in the reproduction of the existing material-technical basis. Ultimately it is the stress on the economic resources—in terms of satisfying manpower demands as well as in the investment processes and the material-technical supply situation—that impedes their truly efficient use.

Those general remarks that the intentions are there to speed up the replacement processes are of no help to us. But when it comes to the real decisions about investments, what we still find too often are these arguments that, presumably in the economic interest, in one or another "special case" the extensive alternative—a new building—is more suitable.

It is not all that easy as it seems at first to make investment decisions in favor of either a new construction or a reconstruction or rationalization, and this for two reasons.

For one thing, an intensification of social production also implies creating new capacities. Sometimes that is not a feasible course, no matter how much we in principle focus on living up to new requirements of scientific-technical progress and of accelerating the scientific-technical revolution principally by reconstructing available capacities, by modernizing the material-technical basis we have. The question about a new structure arises, for instance, when it would be cheaper, less expensive, than a reconstruction. Or it also arises when, after all the circumstances have been thoroughly examined, it turns out that a new capacity really is the only possibility for starting the production of entirely new commodities that might at times be of very great importance for improving economic efficiency. What is mainly involved here is to abstain from the kind of new structures that would principally serve to boost the output of established products without having exhausted the rationalization and reconstruction possibilities in enterprises that have been making such products.

Then also, quality improvements for the material-technical basis we havecombining the replacement of obsolete installations, a partial expansion of production capacity, the introduction of more efficient technological methods and forms of finishing processes, which must always go along with improving the working people's working and living conditions and which have to be ensured not only under ordinary but under increasing production conditions--make high demands on management activity. Managing such processes no doubt also is more strenuous for the one who handles the investments than building a new building, for which normally other enterprises (the general suppliers) assume the full responsibility from the project planning, the actual construction, the installation of the equipment all the way to its being ready for operations. Advances toward 'ntensification, the qualitative renovation of the material-technical basis in place, mainly also significantly depend on the managers' sense of responsibility, their willingness to decide in favor of alternatives that initially are more strenuous and uncomfortable though they will eventually facilitate coping with the processes of economic growth, including those in the particular enterprise concerned.

The tempo, scope and economic effectiveness of the qualitative development of the material-technical basis we have, apart from our increasing the allocations in material resources, mainly depend on how intensive the interaction is between the material and intellectual resources. Crucial to this is a closer and compelling connection between scientific-technical progress and investment activity. This in turn mainly depends on research and investment activity being aimed at the same tasks. It is of course important in planning to have some disposable material resources to be able to make rapid industrial use of some valuable research data not anticipated. Crucial, however, is establishing the connection between research and investment even in the stage of planning when tasks are explored and determined. Especially in the crucial areas where we must perfect our material-technical basis, in the development of our economic structure, an optimum degree of certainty for producing fruitful scientific ideas and their effective application is required. High-grade systematic cooperation between intellectual and material resources is one of the most important advantages of our socialist order in perfecting our materialtechnical basis and, thereby, our stable economic growth.

Increasing Importance of Technological Progress

Technological progress—i.e., the qualitative changes in the technical ways and means in which labor and the tools of labor work together and how the objects of labor are affected—more and more clearly emerges as a determinant of scientific—technical progress and, thus, of the development of our material—technical basis. "The material—technical basis of the GDR's economy is increasingly marked by structural changes leading to the most modern technologies and new quality products."

The great importance of technological progress mainly is that it allows us to overcome certain barriers to efficiency development, which cannot be done merely by our improving our products—that was and partly still is the preferred way of striving for technical progress. The development and application of ADP, for instance, which is getting strong impulses from microelectronics, releases manpower at unpredented dimensions, especially in the preparatory production processes, in shipping and storage, and also in the general administration.

Altogether, modern technologies distinguish themselves by permitting technical solutions that conserve prime costs, assets and resources. Technical progress, as long as it is principally oriented to product development, has as a rule resulted in conserving labor per production unit, but it has led only to a relatively small degree to reducing the operational consumption of energy and material and to boosting output per unit of production funds. When automated solutions are grafted upon traditional technologies, for example, we often get a production boost per unit of live labor, an equal (or only slightly lower) output per unit of material and energy consumption, and a declining output per unit of production funds (meaning, for instance, per M 1,000 of investment capital). The reason for that is that, for one

thing, factually no more efficient operating principles are applied to changing the object of labor but that, secondly, those old technologies do not permit the boost of the production volume which are prerequisite to increased output per unit of production funds. Advances in all directions and efficiency development factors in boosting the overall efficiency of production are not obtainable without decisive technological progress. It thereby becomes the decisive source for economic growth as such.

In all this, our practical experiences tell us, however, that technological progress will lead to the best economic results if it is undertaken in close interaction with perfecting the other elements of the productive forces, above all with the further development of the working tools. Perfecting the working tools in turn becomes a strong stimulus for technological progress.

At times one runs into oversimplified notions about the interaction between technological progress and the further perfecting of the working tools. It is said that the traditional procedures in metal working--especially in metal-cutting--cannot be sign'ficantly further developed because they run into certain physical limits that have to do mainly with the processing velocities. Therefore it would be indispensable to go into nonmechanical procedures (changing the work objects on the molecular, atomic and subatomic level). From there alone could further advances in the working tools be assured. The nonmechanical procedures will no doubt become more important. But it is equally certain that the traditional metal working procedures will not lose their importance over the long run either. Technological progress in machine tool construction takes place, for all intents and purposes, in interaction with the increasing systems quality of the working tools. They make possible the use of electronic, computerized controls and, increasingly in combination with the use of industrial robots, the transition to integrated production sectors. That means great economic progress even though it does not change the immediate process methods. These technological changes make possible a more accurate control of technological processes, simultaneous controls for many parameters, considerable reductions of the stand-by periods for the benefit of the prime periods, and thus a significantly better full capacity utilization of the machines, great advances in processing accuracy and so forth. Related to the working tool system as a whole (not only to the processing methods), we are evidently seeing important technological advances here that are caused largely by the progress in ADP technology.

ADP strongly integrates technical systems. It thus is the crucial element for automated production which tends to bring together the control and guidance for immediate operational processes and also certain auxiliary and production preparation processes. It is perfectly possible for traditional machine tools to be integrated within this automated system too. The technology of the whole process differs significantly from the traditional machinery. Under the conditions of the scientific-technical revolution, which includes essentially new technological ADP solutions, it would be a wrong conclusion to reduce technological progress solely to altering the procedures for working or converting materials.

The important economic effects in cost reduction and commodity quality improvement made possible by technological progress will of course only be attained if they are sought deliberately. Moreover, technology is no panacea either. Practical experience has proven that technological progress, if one-sidedly aimed only at boosting outputs but not much at conservation, will bring in a relatively small advance in efficiency, so that in that case the production volume per unit of labor may be boosted without getting the benefit combining material and energy with production funds. We must look at a noticeable reduction in prime costs, and in large areas of our economy also at reducing the fund-intensity of production, as the indispensable criteria for genuine technological progress.

Technological progress is inseparably connected with better commodity quality. The high operational and reactivity velocities, the generally increasing demands made on accuracy in operations and so forth place high requirements mainly on the producers of the working tools. Those requirements they only meet to the extent that they resolutely address the needs of the users and rapidly and by high-grade qualities satisfy those needs through flexible production programs, using the assembly system of prefabricated machine parts, and a well functioning technical customer service. In the economic relations between producers and buyers, the needs and real demands of the latter must have the last word. This is one of the elementary prerequisites for high speed in technological progress and obtaining the economic effects made possible by it.

FOOTNOTES

- Comrade Erich Honecker, "Aus dem Bericht des Politbueros an die 11.
 Tagung des ZK der SED" (From the Politburo Report to the 11th SED
 Central Committee Plenum), Dietz publishing house, Berlin, 1979, p 48.
- Cf. Guenter Mittag, "Mit politischem Kampfgeist fuer eine hoehere Effektivitaet. 11. Tagung des ZK der SED" (With Political Fighting Spirit for Higher Effectiveness--lith SED Central Committee Plenum), p 128.
- 3. Comrade Erich Honecker, op. cit., p 51.
- Cf. Guenter Mittag, "Socialist Rationalization--The Way to Consolidate Our Economic Strength," EINHEIT, No 11, 1979, p 1120.
- 5. Ibid.
- 6. Guenter Mittag, "Mit politischem Kampfgeist . . .," loc.cit., p 137.

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GERMAN DEMOCRATIC REPUBLIC

MACHINE-TOOL COMBINE'S 10-YEAR DEVELOPMENT, PROSPECTS REVIEWED

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['Material-Technical Basis' feature article by Rudi Winter, engineer, director general, VEB Fritz Heckert Machine-Tool Combine, Karl-Marx-Stadt:
"Machine-Tool Combine's Responsibility for Modernization of Production System." For translation of related information see the following JPRS issues of this series: under the heading, "Combine System's Development, Future Tasks Analyzed," 75132, 14 Feb 80, No 1980, pp 15-26; on combine production efficiency, 74383, 16 Oct 79, No 1943, pp 24-34; on combine management problems, 74858, 3 Jan 80, No 1968, pp 32-37 and 73083, 26 Mar 79, No 1872, pp 13-40; on key aspects of new combine regulation, 75167, 20 Feb 80, No 1981, pp 20-25. An analysis of legal problems connected with the formation of combines is published in JPRS 72811, 13 Feb 79, TRANSLATIONS ON EASTERN EUROPE: POLITICAL, SOCIOLOGICAL AND MILITARY AFFAIRS No 1646, pp 25-35]

[Text] In the Ninth SED Congress resolutions, a special point is made of further perfecting our material-technical basis as a decisive element in our social policy which aims at the good of the people. There is a close connection between that extremely important task and stable economic growth in the GDR, which is based on high labor productivity and efficiency in our social labor. By strengthening our material-technical basis we speed up the efficiency development of our economy, and that in turn again is the precondition for improving our accumulation capacity, an imperative demand for carrying on with our main task policy. Here then, through accelerating our scientific-technical progress, conditions are being created at an increasing extent to conform to the party resolutions on an intensively expanded reproduction through systematically reconditioning or modernizing our material-technical basis. "It is of extraordinary significance," Comrade Erich Honecker emphasized at the 11th Central Committee plenum, "that our production growth be based on the introduction of new commodities and technologies."1

Industrial Branch of High Economic Rank

The GDR's machine-tool construction has a great influence on this development by making high-grade machines and installations available, and the use value of its products to a considerabl degree determines the quality and performance level of our metal working industry. Within the metal processing industry it holds a key position in enforcing scientific-technical progress and, thus, in decisively improving our labor productivity. The manufacture of such world-renowned GDR top commodities as textile machines, polygraphic machines and farm machinery would be as impossible without efficient machine-tools as would be that of refrigerators, kitchen appliances and other consumer commodities which have become standard equipment in nearly all households. Machine-tool construction also holds a key position among our industrial branches, however, because its products increasingly contribute to making work safer and facilitating or eliminating heavy physical work.

These tasks of high economic rank, of decisive importance to the smooth further development of the material-technical basis of our economy, require of us to meet the growing demands for a high quality and scientific-technical standards in our domestic and export production. Especially through exporting our machine-tools we provide for a large part of the funds our economy needs for its imports. And so it is all the more compelling to ensure an above-average rate of growth for all our machine-tools and aim our greatest efforts at the kind of products that will keep in step with developments on the international markets and can be sold at maximum prices and under the most advantageous conditions.

To use the great opportunities for a high rate of growth more comprehensively which our socialist planned economy offers us by the systematic development of the social division of labor processes, the GDR early in 1970 set up four tool-machine combines. Among them is the VEB Fritz Heckert Machine-Tool Combine in Karl-Marx-Stadt which mainly produces machines for machining prismatic production parts as well as milling and drilling and shaping machines, tool grinders and special machinery and also assembly lines. In the 10 years of its existence, the combine, with its 26,000 working people and 18 enterprises, has become an efficient economic unit. Through the steady endeavor by the enterprise collectives to make a high contribution to a stable and fast rate of growth in the GDR, labor productivity between 1970 and 1979 was raised by 2.5 times and industrial commodity output, more than threefold. Efficiency went up much more rapidly still. Our export too kept pace with this development. That expresses our increasing international reputation and attests to the fine quality that marks our work. Whereas in 1970, only 38 percent of our products under mandatory standard controls bore the "Q" guaranty seal, now that proportion is 85 percent. At the same time we were able to reduce significantly the costs for rejects, make-up work and warranty obligations.

Thanks to the working people's diligent and creative work, our annual plans have been smoothly fulfilled and exceeded. By the position we obtained, the planning targets for labor productivity and industrial commodity production allocated in the five-year plan for the period from 1976 to 1979 were surpassed by 18 days, a lead we intend to extend to 28 days by the end of 1980. All combine enterprises take part in this development, as they are intimately connected with each other through supplying each other in their division of labor.

Specialization and Concentration--The Combine's Advantage

The positive results achieved in improving our efficiency, particularly by using the data of scientific-technical progress and by systematically extending the social division of labor processes, have confirmed that under our current conditions of social development the combine directly responsible to a ministry has stood its test as a basic economic unit, conforming to modern socialist management and organizational requirements. Through its closed reproduction process by the combine enterprises and the economic combination of the crucial reproduction phases, it offers favorable conditions for accelerating scientific-technical progress, raising the technological level of production, and comprehensively rationalizing all processes in production preparation and operation.

Karl Marx proved that a new production potential, a new productive force, arises through the division of labor. Dividing and combining the work go together there and are of decisive importance for the production level. Proceeding from that realization, the favorable conditions for deepening our division of labor were made use of when we formed our combine, and ways to specialize and concentrate our production were set down. While ensuring the production program set down for the combine, the combine enterprises were gradually oriented to manufacturing commodities for which they had the best developmental and production conditions due to their basic funds, labor capacity and longtime experiences. With it, parallel production was, in principle, eliminated. For our spare parts and assemblies we achieved a production specialization and concentration even though the series produced in tool-machine construction are typically small, by taking for our point of departure the geometric and technological resemblance of the parts. These considerations were coupled with the development of the assembly system of prefabricated machine parts and with using as many patterned components as possible.

Up to now, our combine has 18 central production shops for spare parts and 20 for assemblies amounting to 13.9 percent of a share in the combine's industrial commodity manufactire. In those sectors, our labor productivity has for years been improved much faster than in the central production plants because we reached a new and higher production level there through optimum technologies and the consistent application of scientific labor organization in combination with the use of highly productive machinery. Now their labor productivity is from 80 to 100 percent higher than in our

total production. Central manufacture in the combine enterprises was developed in parallel with final production so that the production programs in the combine enterprises in principle consist of both final and ancillary products. Thereby we were able to make a fuller use of the available reserves in our engineer-technical and machine capacity and of the possibilities intensively expanded reproduction gives us.

The results achieved with our specialization and cooperation are extremely valuable for developing the creative capacities in the enterprise collectives and the further development of the working people's mode of socialist conduct. Successes achieved this way, perceptible as they are for all, in improving our efficiency, which always goes hand in hand with our improving our working and living conditions, and the always more evident appreciation our commodities find on the world market have not insignificantly helped shape thinking and actions more strongly on behalf of the whole combine and of all our society and make that itself effective as a factor in performance improvement. Today the working people know that organized performance improvements that transcend the scope of their own enterprise are more than merely the sum total of the individual achievements of the enterprises but are exponential in their benefit, and that a capacity has been created through the combine that is required for our growing demands.

Constantly new requirements and opportunities for the division of labor arise of course--from the acceleration of scientific-technical progress, the new products and new and more efficient technical processes, but also from our growing economic possibilities and requirements and from our deepening socialist economic integration. To live up to these requirements, it is necessary for the general director to make the needed, carefully prepared and soundly reasoned management decisions at the appropriate time by which to avoid the splintering of valuable research and production capacities. To make possible management decisions for attaining the highest productivity and efficiency in the combine by taking account of all the factors that have an effect on it, a long-term conception on combine development was prepared even at the time the combine was formed, which has since then been further perfected.

A Lead for the Production of Tomorrow

This long-term conception proceeds from the high demands the economy places on tool-machine construction and contains the decisive requirements for optimum efficiency improvements through the intensification and rationalization of the entire reproduction process on the basis of scientific-technical progress. It contains the R&D for ensuring the optimum scientific-technical standards of our commodities up to 1985 and partly even 1990, our technological development up to 1985, which emphasizes especially our putting in operation new and further developed commodities, a further divisions of labor and cooperation among the combine enterprises for continuing our above-average performance improvements, and the organization and application of modern computer technology to refine and rationalize our management, planning and operational processes up to 1985.

This strategic combine management conception proves an indispensable management tool for achieving optimum results in the many decisions that have to be made every day on the various levels and in the different areas of the combine for fulfilling the plan and the requisite tasks for achieving scientific lead. For that reason the demand raised at the 11th Central Committee plenum deserves the greatest attention, to the effect that we create still better preconditions for a smooth long-term development of our performance improvements and efficiency boosts through having the central state organs make their fundamental, and well-timed, decisions in still a better way.

For a performance development of such magnitudes as brought about for years in our VEB Filtz Heckert Tool-Machine Combine, and as it has to be achieved all the more, even to a much higher degree, in the future, especially because of the growing foreign economy demands placed upon our economy, our combine too must still make greater efforts to contribute to the economically noticeable "thrust of rationalization that depends on combining the most modern scientific-technical data and technologies with the working people's innovator movement."3 There thus is a spectrum to the rationalization measures in the combine that ranges from an expertise in modern science via the introduction of new technological and organizational solutions all the way to the most effective utilization of the production experiences of the workers running the machines and assemblies. They entail short-range technical-organizational measures of the annual plan as well as strategically focused ones that are derived from the combine's long-term developmental conception. All told, these measures, in conformity with the basic thoughts of intensification, aim at making optimum use of what there is in the combine and each combine enterprise and achieving a high performance improvement through rapid scientific-technical progress.

From this there result demanding management tasks and high demands for the working people's willingness to perform. In their political-ideological work, the combine's party organizations therefore concentrate on creating a creative atmosphere in all collectives and convincing each and everyone that he has the duty to seek, through socialist competition, a reduction of the time and cost expenditures for the products and to contribute through his own excellent quality work to surpassing the plan. That this course is successful is shown by the many commitments and outstanding labor achievements of the communists, and by the performance of all working people in the combine in their accelerating our scientific-technical progress, in more rapidly putting new commodities in production, and in their reducing our production consumption. Through their campaign programs, the party organizations target and direct these various initiatives toward exceeding the It is also demonstrated by the outcome of the efforts in conserving energy. Each year the combine has reduced its energy intensity by an average of 5 percent, and seven of the energy-intensive combine enterprises have meanwhile qualified as "energy conserving enterprises." But the users too are getting their benefits from Heckert commodities, for the use of newly developed products of our combine, for example, improves their energy efficiency by 10 to 30 percent.

Natural science and technical research has a great influence on improving our labor productivity and efficiency. That makes it indispensable to use those data fast and extensively for product development and for new technological methods to maintain international top positions and gain new ones. The point in machine-tool production is to make machine-tools and installations that are wanted for their use properties on the world market, meet domestic demands and are produced with great productivity and efficiency. As among all factors that affect and determine the level and intrinsic economic value of machine-tool production the absolute priority goes to the consumers' needs, it is necessary to accommodate machine-tools as much as possible to the specific needs the customers have, which then also means making tailor-made machines to that end, so that along with divers types of assemblies we can also offer many different designs and automation alternatives. In many cases this has led to the manufacture of small series and the building of special machinery.

Yet even under these conditions ways were found and successfully taken to ensure high labor productivity and efficiency in the manufacture of machine-tools. First of all the machine-tools are largely produced through the assembly of prefabricated machine parts, which permits a most varied commodity design through a highly repetitive degree for spare parts and assemblies in mechanical finishing as well as in the component assembly in medium-size series. Secondly, mechanical working proceeds more and more through numerically controlled machine-tool and working centers permitting high productivity and efficiency even for small and medium lots through partly or fully automated processes.

In all this, no restraints to the production program that might have been harmful to the economy were permitted from any one-sided view due to conventional technology and forms of organization. Top products at wide range are now being produced, the high use value of which reflects modern science data. In particular the resolutions of the sixth Central Committee plenum, which as one knows dealt with speeding up the development of microelectronics in the GDR, engendered many activities toward new and further development of products. To give an example, under the leader to by the SED bezirk headquarters in Karl-Marx-Stadt, at the VEB Karl Marx Numerik socialist competition was organized into speeding up a new generation of freely programmable machine-tool controls and the requisite close cooperation between the controls manufacturer and the machine-tool building enterprises. The result of it was that the free program system CNC 600, so very important for our machine-tool level, is put into series production in 1980, after a relatively brief period of development. Furthermore, the close and unprecedented ties between the development collectives in electrical engineering and machine-tool construction are of great economic importance with regard to future tasks.

Management With Commitment to Research and Development

Our own thorough investigations into the R&D process show that the greatest reserves for accelerating scientific-technical progress lie in management

activity. Constantly raising its level therefore is the important thing by perfecting the management system and its instruments and the everyday management and organizational work. Our machine-tool combine has developed principles for it that have stood up well in man ment practice.

Duty schedules apportion optimum technical-economic objectives proceeding from scientific-technical top levels that have to be reached through new products. This mainly involves the sort of use properties that are most important for the clientele for which they are intended and are in the proper price range. Duty schedules simultaneously exclude other use properties that are not needed in particular areas for which the technology might also be used. For series production in automobile construction, for instance, drilling machines need at most two revolution counters, but repair enterprises need sensitive and ridgeless ones. Were one to satisfy those needs with one and the same machine, efficiency losses, through a high investment of materials and costs, would be unavoidable.

Among the management activity principles for getting the best R&D results finally also is to derive price limits for new products from the use properties asked for and not from the sum total of maximally possible technical parameters. If, that is, the industrial delivery price is formed by the cost-benefit ratio in comparison with the commodity used before, none other but the use properties the world market requires may be considered in setting the prices because they alone are honored by the world market.

Optimum R&D results finally means guaranteeing for new products those technical and economic parameters, in the design phase already, which in comparison with the products they replace lower the specific expenditures in labor, material, energy and prime costs and improve their exportability. It has been found useful to establish as mandatory for this that the use property improvement, compared with that in the product replaced, must be at least 30 percent, the specific time invested for the production of the new products and the specific material consumption and energy intensity must be reduced by 25 percent, and the costs for the new product must remain below average costs in the enterprise.

The following examples of selected parameters show that we have succeeded in reaching and exceeding these objectives

Product and Year When Introduced

	Crosscut and centering machines, 1978	Roll turners 1978	Machine shop centers, quantity 250 1979
Labor productivity increase of user Labor productivity increase of pro-		30%	40%
ducers through reduced labor effort Reduction of material consumption as compared with material investmen	37%	21.5%	44.3%
(t/million marks)	39%	40.3%	45%

In the outcome of R&D work thus far it has been possible to improve the mass production ratio for many commodities significantly. Some 60 percent of all commodities currently in production shows better values in this regard than comparable competing commodities, 20 percent is on an equivalent level, and again 20 percent is not yet on a par with them. Another major aspect of management activity follows from that the preparation and implementation of R&D tasks call for close cooperation between final producers and ancillary suppliers particularly under the effect from rapidly advancing mechanization and automation. And that is the reason why the most important ancillary enterprises get drawn into elaborating the requirements to handle the requisite prerequisites for ancillary supplies in parallel with the projects in development. With the main partners of machine-tools, those in electrical engineering, electronics and heavy machine building, the long-term tasks have been set down in joint programs, confirmed by the ministers.

For rapidly using and applying the data of natural science and technical research it was very important to integrate the machine-tool research center closely with the R&D management process. That gave rise to close partner-ships between the production enterprises and the research center, and we have seen to it that researchers are constantly and directly working together in socialist cooperative efforts with the development collectives in the enterprises up to the time that the new commodities go into production. Their research tasks are completed only when the new commodities are produced with great productivity and efficiency and have met their acid test on the world market. Results have shown that our closely tying in our research capacities with the industrial enterprises by no means hurts industrial scientific lead research. On the contrary, the research collectives thereby constantly got new stimuli and impulses for their creative activity. That also is attested by the high-speed increase of patent registrations, which doubled within 2 years.

Highest demands are of course placed on the dedication, diligence and creative capacity of the scientific-technical cadre. Hard and strenuous work is needed and a high personal commitment. For that reason our combine keeps deliberating on how it can do still more for shaping such socialist modes of conduct by systematic indoctrination and a targeted use of material and moral incentives. Steps have been taken with good success toward significantly raising the social recognition of the engineers, designers and technologists. All engineers in our combine, for instance, can gain the honorific title of "first designer" or "first technologist," when they distinguish themselves through great knowledge and creative achievements in their field of specialization, and it brings with it a higher salary. One out of every eight designers or technologists in our production enterprises has thus far gained that title.

The Main Point of Emphasis: Technology and Rationalization

Good experiences have been gathered in the management and planning activity in the technological field. Decisive potentials for technological R&D were

created from the reserves of the combine. Whereas in 1970, less than 5 percent of the combine's R&D funds was used for that field, this year it was over 20 percent. By the results from that, 30 percent of the planned saving in basic working hours is being realized by it—which in 1979 was the labor equivalent of 900 workers.

As the material basis for such successes, the newly created technological testing departments have proven themselves extremely well in recent years. They have become a field for experimentation for the technologists and a center for the innovators, who can thereby translate into action their valuable ideas much faster and more effectively. Dictated by the consideration that, for instance, a producer of milling machines must also further develop the whole milling process and offer an optimum solution through combining the machine, the method and the tool, the combine's technological testing departments have been specialized in certain procedures that connect with the principal commodities.

Modern technologies also require many initiatives and considerable material efforts for our constructing our own means of rationalization. Their production has been doubled year after year since 1976 and in 1979 came to M 30 million. That is an important prerequisite for extensive rationalization tasks such as building integrated production sectors in the parent enterprise, the linkage between machine-tools for getting fully automated work processes in partial areas of small-part production, and for further assembly lines. First we had used many manual devices, but in 1979 the parent enterprise was able to start an effective operation of its first technical unit consisting of three automated machines and a self-built industrial robot. In 1980, the first series of industrial robots will be built through our own construction of means of rationalization jointly with the VEB 7 October Machine-Tool Combine in Berlin and important ancillary enterprises. This way we create efficient operational centers for robots. To make maximum capacity use of these highly productive installations, the workers in the combine ensure their capacity use per working day at over 21 hours, partly through three-shift operation, partly by staggering the work week.

Yet not only rationalizing production itself is imperative for high efficiency. Also the rationalization of production preparation, and thus the use of electronic computer technology, deserves to be emphasized. As of today, 82 percent of the combine's industrial commodity production is under computer-aided planning, guidance and control. Some 86 percent of all specifications and basic ration cards are in decentralized storage and available to be analyzed for planning and management processes. An important task in rationalizing our production preparation furthermore was solved by the machine programming for NC machines. While a technologist would need from 16 to 18 hours for manually producing the program for working on a complicated prismatic production part, the small computer KRS 4201 does the same work in about one hour. The same trend is seen in the computer-assisted process preparation, which reduces the time needed for working up the basic job ration cards from 20 to 9.5 hours. That alone saves 16,000 technology hours annually in the combine.

To accelerate our scientific-technical progress above and beyond those possibilities, cooperation has become ever more intimate between the combine's production enterprises and the research center and the Karl-Marx-Stadt Technical College. Early in 1979, an agreement made between the rector of the Karl-Marx-Stadt Technical College and the general director of the VEB Fritz Heckert Machine-Tool Combine went into effect. It contains the systematic, mandatory and complex cooperation between them in important areas of natural science and technical research, a rapid application of their data in production, their joint use of high-grade scientific devices and equipment, and the training and advanced training of cadres. In the combine's parent enterprise alone this cooperation will help renovate the entire production profile we now have within the next 4 to 5 years. Even at this time it may already be affirmed that this cooperation is of considerable benefit for both partners and for our socialist society at large. Thus we do all we can in further strengthening our joint efforts for fully using further reserves in the scientific-technical field and thereby assisting in the mighty "thrust toward rationalization" that our entire economy must receive from machinetool construction.

FOOTNOTES

- Comrade Erich Honecker, "Aus dem Bericht des Politbueros an die 11.
 Tagung des ZK der SED" (From the Politburo Report to the 11th SED
 Central Committee Plenum), Dietz publishing house, Berlin, 1979, p 35.
- Cf. Wolfgang Biermann, "Spitzenleistungen durch hohe Einstellung zur Arbeit. 11. Tagung des ZK der 3D" (Top Achievements Through a Lofty Attitude About Work--11th SD Central Committee Plenum), p 102.
- 3. Comrade Erich Honecker, op. cit., p 48.

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GERMAN DEMOCRATIC REPUBLIC

NEW APPROACH URGED FOR MORE EFFECTIVE INVESTMENTS

East Berlin ElNHEIT in German Vol 35 No 2, Feb 80 signed to press 15 Jan 80 pp 137-143

['Material-Technical Basis' feature article by Wolfgang Gress, economist, member, GDR Council of Ministers; state secretary, director, Investments and Science and Technology, State Planning Commission: "For Increased Investment Effectiveness." A translation of a West German analysis of the subject is published under the heading, "Great Concentration of Investments Urged," in JPRS 74899, 10 Jan 80, No 1970 of this series, pp 37-40. For a translation of an article on the related subject of prime cost reductions, containing further references, see JPRS 75132, 14 Feb 80, No 1980 of this series, pp 27-35]

[Text] In recent months our party leadership has analyzed the far-reaching changes resulting from the changes on the international markets for our economic growth. From it, it has drawn the requisite conclusions for strengthening the GDR. A maximum performance improvement has to be achieved through our making the fullest use of our production potential and its further development, mainly in qualitative respects. That is imperative to ensure the standard of living we have achieved and to continue raising the people's material and cultural standard of living step by step in the future as well.

All the prerequisites are at hand for it. Our planned economy has reached a high maturity. Our country's material-technical basis has become stronger. Well functioning combines, enterprises and industrial branches are evidence that it is possible to raise our labor productivity clearly above and beyond the average rates customary thus far.

Now we must vigorously improve our efficiency in all areas while proceeding from the possibilities created and from altered requirements. An economically perceptible "thrust in rationalization" has to be brought to realization quickly which is based on the combination between most up-to-date scientific-technical data and technologies and the working people's innovator movement. For this, as Comrade Erich Honecker has stressed at the 11th Central Committee plenum, an economic use made of our investments becomes a key issue in our economic policy. "Their scope can be increased only to some extent. Far greater reserves lie in the field o our effectiveness. Improving performance achieved by every mark invested thus is the most important thing."

That is the target of the resolution on the work in the field of investments which was taken by the Central Committee Politburo and published in our party press early in November. It posits new and higher criteria for state management activity, both for the state planning commission and the ministries, and calls for new working methods in the combines and enterprises. It confronts each party organization with the task to conduct an aggressive ideological struggle for achieving these new and high criteria aimed at making all working people and managers understand that investments available have to be placed still more effectively in strengthening our material-technical basis because that is indispensably prerequisite to ensure dynamic production growth over long range, as it would conform to the benefit of the citizens of our country, to strengthening our republic.

Strengthening of Our Material-Technical Basis

Our party has always let itself be guided by that an investment policy aimed at strengthening our material-technical basis is a fundamental condition for steadily expanding our social reproduction and, thus, for our social progress. Thus, for expanding and extending our material-technical production basis and for implementing the tasks decided on in the field of housing construction, public education and the social, health and cultural care of the working people, as much as M 391 billion were invested under the 1971-1975 Five-Year Plan and the first 4 years of the current five-year plan alone. Of that, circa 72 percent was allocated for developing our industry, building trade, agriculture and forestry, and transportation and communication. Whereas basic assets allocations in industry came to an average of M 125,000 per job in 1975, by 1979 that amount had risen to M 180,000.

In view of the fact that we have to gage ourselves against the objective criteria of scientific-technical progress, efficiency, quality and intensive economic management, it will be much more necessary in the future than in has been fundamentally to improve the cost-benefit ratio in the investment field too. "Highest economizing is needed everywhere in the most comprehensive sense to avoid excess costs," Comrade Erich Honecker wrote in replying to the working people in the VEB Carl Zeiss Combine, Jena. "What matters is to reach optimum economic results by smallest efforts. Everything our economy makes available must be handled most sensibly in the interest of implementing our overall policy."2 What is above all decisive for strengthening our economic efficiency is that through the investments an essential acceleration of socialist intensification and production rationalization is brought to realization. In this, as a matter of priority, investment activity must materially buttress the measures for scientific-technical pro-The point is, we must achieve the kind of scientific-technical work that would represent top performance on the international scale. That helps tap efficiency reserves in economically required magnitudes. They are prerequisite to our employing the available investments in introducing new highgrade products and highly productive technologies and methods, realizing an important production boost, enforcing new criteria in materials and energy economy, and substituting for imports needed up to now from the nonsocialist economic region.

It therefore is a decisive task to create the necessary material conditions for efficient R\$D and the most beneficial use of scientific-technical data and to coordinate the appropriate projects with our investment plans on a basis of priority. We must concentrate more on finding solutions that ensure a scientific-technical investment level comforming to optimum standards, and set down on that basis demanding technical and economic parameters for those projects, and must make sure that those capacities are effectively realized and quickly put in operation.

What results such an approach can achieve is shown by the following example: To boost carpet production significantly, for our population and our export, within a very short period a new weaving principle, called "Liroflor," was developed and, on its basis, an appropriate machine system too. By realizing the investment project of Teppichwerke Nord/Malchow, the preconditions are created for putting this scientific-technical top performance into production by 1980, and it is up to the Guben chemical fiber combine to make intensive efforts to make available, proper as to schedules and qualities, the basic material needed for it, called "Dedotex-Polgarn."

It is also sure carpets produced by this new procedure meet the highest quality demands, with the labor productivity rising three fold in comparison with the traditional technology. We thereby also save considerable imports from the nonsocialist economic region. The excellent work done by the participating collectives is seen in that in this project for every mark invested a commodity production boost of M 2.10 is achieved.

Oriented to an Economically More Effective Rationalization

A stronger orientation in investment activity to a productive use of science, techniques and technology must help particularly in saving jobs and releasing labor for coping with economic priority tasks. The priority here lies with gaining manpower for making full capacity use of available and newly created basic assets, especially our highly productive machinery and equipment. If we only improved the use of our basic assets by 10 minutes per day, we would get an additional production volume of more than M 4 billion annually without having to invest one mark more.

The ratio achieved up to now, as the result of our economic investment activity, between newly created and saved jobs by no means conforms to the requirements of our economic development. That it also can be done differently and that, through the correct approach, requisite proportions can be achieved is proven by combines such as NARVA, Keramische Werke Herrnsdorf, the fort Liebknocht heavy machine construction combine in Magdeburg, Umformtee anik Erfurt and Textima in Karl-Marx-Stadt. There, more jobs were cut back than new ones were created through investments in 1979. In our economy at large, however, such proper and necessary proportions have not been accomplished in years.

Above all, there must be an end to seeking the production growth needed in the processing industry by mainly expanding and building new plants, which always calls for new jobs and additional manpower. We have often still neglected the renovation, modernization and technical improvements of funds available, which would have boosted our output with the labor in place. This is an approach that contradicts intensification. Essential reasons for that are that intensification—oriented investment activity clearly is more complicated than extensive investment activity, thinking in terms of extensive dimensions for years has encrusted itself, and many responsible comrades will more readily ask for more manpower than stubbornly struggle to solve these problems. Our ideological work thus has a great responsibility to bolster intensification—oriented thinking and actions and to explain that "successes" achieved merely through extensive measures will sooner or later fail to provide the enterprise itself with permanent solutions because they are bound to lead to economic miscalculations.

With a view to the economic targets for our performance and efficiency development in years to come, we think it a matter of priority to bring a rigorous influence to bear on that our investments are used, to a much larger extent than they have, for the complex rationalization of prevailing technological processes and the renovation, modernization and redesigning of production departments, enterprise sectors and whole enterprises. Connected with that, many questions are on the agenda, which to solve we have to do much more concentrated work.

The first fundamental precondition for a new and economically more effective stage of rationalization is rigorously enforcing the measures assigned on an accelerated development and application of microelectronics in the economy. It means the investments required for it should on a priority basis be included in the plans. At the same time it is necessary to make greater efforts in all branches of the economy, mainly in machine building, in making more comprehensive a use of the new technological opportunities provided by the application of microelectronics, in production for instance, in the use of modern electronic controls, the development of automation technology and so forth, and to focus our own investment conceptions on those requirements.

Second, the point is to work out solutions that would en. ... ne availability of high-grade, efficient equipment with which, through uncompromising orientation to the new technological development trends referred to, maximal productivity and efficiency can be obtained. Even Karl Marx pointed out that labor productivity mainly depended on the scientific-technical level of the tools of labor: "Yet to the extent that large industry develops, producing the real wealth becomes less dependent on the working time and the quantum of labor invested than on the power of the agencies set in motion during working time and which, in turn, is not proportionate to the immediate working time invested in production but rather depends on the general status of science and of progress in technology, or on the application of such science to production." 3

The demand for technological equipment capable of a high specific performance at low energy and material consumption and with minor space requirements relates in particular to machine tools and the products of heavy machinery and equipment commodities and electrical engineering.

As machinery construction and electrical engineering at the same time have to make an important contribution to the solution of our foreign economy tasks, an urgent task lies in making decisions, through the five-year plan and the annual plans, on speeding up efficiency development in those areas and on the most efficient economic use of the equipment available.

Third, it is necessary rapidly to increase all combines' and enterprises' own production of means of rationalization.

Through vigorous assistance by the party organizations, noteworthy advances have already been made in this field. The production of their own means of rationalization has been increased in the last 2 years to 3 1/2 times of what it had been in the Fritz Heckert Machine-Tool Combine, for instance, to 2.8 times as much in the Buna Chemical Works, and was nearly doubled in the TAKRAF Combine.

Here like everywhere else the realization must break through that ultimately it is the user himself who will have to organize effectively the design and production of much specific equipment. That mainly also concers the self-production of rationalization equipment in transportation, transshipment and other auxiliary processes, for which it is particularly urgent to reduce the currently still far too high manpower requirements.

Fourth, the stronger investment concentration on rationalization, modernization and redesigning also places new demands on construction, especially industrial construction. Projects intended mainly for expansion and new construction therefore have to be carried out gradually in such a way that industrial construction car place new technologies and equipment within the available perimeters within ordinary international time frames. This means that some of the capacities which heretofore were specialized for partial assembly in light metal and concrete processing construction, earthwork engineering, general above-surface structures and prefabrication will in the future have to be used for the growing demands in monolith construction and underground workings and consolidation. That makes great demands on the many construction workers who will have to accommodate themselves to different activities. And that makes it all the more necessary to ensure a high level in the technical and organizational preparation of construction production.

Developing and applying efficient construction technologies is also of great importance for improving the efficiency of industrial construction. Outstanding results for reducing both the construction periods and the expenditures were achieved, for example, with a newly developed method for redesigning the roof construction for industrial buildings and with the use a steel component joint assembly in power plant construction. Furthermore,

more use ought to be made of the scientific-technical potentials in construction to develop the yet inadequate work with input norms and reuse projects.

Through purposefully solving the questions raised, decisive prerequisites are created for concentrating investments on speeding up the intensification and rationalization processes, improving their effectiveness thereby and thus contributing more effectively to strengthening our economic efficiency. That also means that we should have to mobilize all the many reserves found in reducing investment input, preventing any kind of waste, cutting back production time spans, and ensuring strict order and discipline in carrying out our projects.

Investment Planning To Be Further Perfected

In line with the measures adopted by the Central Committee Politburo, the State Planning Commission, in elaborating the investment plan, aims its efforts at surmounting the fragmentation of investment funds available into a large number of simultaneous projects, which have shown a trend toward increasing incompletion in investments. This involves mainly concrete proposals on drastically curtailing "new starts" by which the funds can mainly be concentrated on projects that provide us with a high short-range production boost.

That at the same time provides us with the unequivocal focus on including in the investment plan only projects that conform with economic requirements and criteria. This involves the economic utilization of scientific-technical data and high rationalization effects as well as an optimum costbenefit ratio, as reflected in the basic assets quota and other efficiency parameters.

In accordance with the principle that all investments contained in the plan have to be carried out consistently, one major emphasis in our work lies on shoring up our projects in the material-technical sense. Measures have been introduced to raise the level of central state construction and equipment cost accounting. Proceeding from there, an influence is brought to bear on all management levels, through cooperation with the ministries, so they will enforce the plan-balance-contract unity.

Our plan was the improve our investment planning already for 1980. To that end, the State Planning Commission together with the competent government organs and the Workers and Farmers' Inspectorate thoroughly checked approximately 3,500 investment proposals. Construction and equipment allocations were concentrated in such a way that nearly half of the projects examined will be completed in 1980. The number of the new investment projects proposed was diminished by 200. Thereby it becamse possible to increase the construction and equipment allocations for 240 projects and to reduce the time span needed for completing those projects by 8 to 10 percent.

It is important to be consistent in continuing this line of our work and, in particular, while preparing the next five-year plan, get a better handle on those factors that make investments more effective and make them the background for our economic computations. That concerns our preparing a conception for the development, employment and structure of the investment funds as well as enforcing the measures that make possible the needed economic "thrust in rationalization."

To ensure high-level planning activity in the central government organs and in all combines and enterprises, we must supplement it by more skillful investment preparation. Reducing construction time frames greatly depends on that. In our chemical industry, for example, the preparation periods are too brief and completing the projects takes too long. Industrial countries on a comparable level of development take twice as much time for preparing their projects while only half as much time to complete them. Ultimately then, investment projects will also become economically effective within a briefer period.

By using as an example a microelectronics project in the semiconductor plantof Frankfurt/Oder, we can show what reserves there are to be tapped if skilled preparation is ensured under the manager's personal responsibility and through a concentrated use of the scientific-technical potential and the project planning capacities. They reviewed their intended operations procedures by comparing them with world standards and decided to do without building a new assembly hall which was originally intended. Furthermore, on the basis of an extensive analysis of the performance capability of the available basic assets, they figured out that by redesigning and rationalizing the buildings and installations they had, and especially by using more productive equipment, they could almost double the enterprise capacity up to 1984, and only after that would it be necessary to build new structures in line with the development of demands. When they worked out their technical construction functional and technological documentation, the comrades figured out a significant cost reduction from what their original ideas had been. Through careful preparation that starts several years before construction starts it will be possible to bring off the project, through concentration, within a time frame that conforms to international standards. Whereas deficient preparation in the past often led to higher costs and prices, in this case, through responsible work oriented to the most beneficial economic solution, the preconditions for high efficiency were created even during the preparatory phase.

An equally clear ideological position and working methods borne by the same sense of responsibility is what we also mainly need on the investment construction sites, where the immediate decisions are made on the systematic realization of projects. We must thus pay more attention to seeing the managers fully assume their personal responsibilities, to precise cost accounting for results achieved, to objectively assessing problems arising and making clear decisions about solving them. An important concern of ours must be purposefully to generalize and use the best experiences for enforcing strict order and discipline at all construction sites.

Altogether, improving investment efficiency involves tasks the solution of which calls for a high sense of social responsibility by all who take part in investment projects, a creative approach and a scientific working style for all managers. In view of the new criteria and requirements adopted at the 11th Central Committee plenum, it becomes clear that the consistent implementation of the measures issued by the party for the investment field is a cardinal issue for our economic growth and an indispensable prerequisite for the continued successful shaping of the developed socialist society in our country.

FOOTNOTES

- Comrade Erich Honecker, "Aus dem Bericht des Politbueros an die 11.
 Tagung des Zentralkomitees der SED" (From the Politburo Report to
 the 11th SED Central Committee Plenum), Dietz publishing house, Berlin,
 1979, p 49.
- 2. Erich Honecker, "Reply to the Working People in the VEB Carl Zeiss Jena Combine," NEUES DEUTSCHLAND, 23 August 1979, p 1.
- 3. Karl Marx, "Principles of the Critique of Political Economy," Dietz publishing house, Berlin, 1953, p 592.

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GDR'S R ... IN SOCIALIST ECONOMIC INTEGRATION DETAILED

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['Material-Technical Basis' feature article by Prof Dr Helmut Koziolek, candidate member, SED Central Committee; director, Central Institute for Socialist Economic Management, SED CC; chairman, Economic Research Council; member, GDR Academy of Sciences; member, EINHEIT editorial board: "Cooperation in GDR-USSR Fraternal Alliance"]

[Text] With the growing maturity of the socialist social order in the CEMA countries, the importance of socialist economic integration increases objectively, and it increasingly gains in weight as a working condition for the economic laws of socialism in the further shaping of developed socialism in the participating countries. Our party attaches an outstanding importance to further deepening our socialist economic integration, it being, after all, as our party program says, "a decisive condition for the stable economic and social development of the GDR."

Socialist Economic Integration and Production Intensification

Production intensification has become the main course in the further development of the material-technical basis in the CEMA countries. It permits larger scales for economic activity and more efficient ways for using the qualitative growth factors—for improving our economic efficiency. The Central Committee report to the Ninth SED Congress stated: "On the basis of the complex program for socialist economic integration, the economies of the countries united in CEMA begin to intertwine. That, qualitative—ly, releases new possibilities for improving our community's economic capacity and at the same time greatly helps deepen in every way the relations of friendship among our countries and peoples."²

The GDR, with its social development and, above all, with the development of its economy, science and technology, is included in the shaping of this process. Of decisive importance to it are the agreements with the Soviet Union and the other CEMA countries for the 1980's. Particularly the "results of correlating with the Soviet Union make possible for us our transition from this five-year plan to the next, which continues to be marked by dynamic economic development." These correlations between the GDR and the USSR are complemented "by agreements with Poland, the CSSR and

the other CEMA states, so that more than two-thirds of our trade will continue to be transacted within the CEMA framework. That is a solid foundation for the GDR's economic growth and it also makes possible for us to develop our trade with the nonsocialist world on a healthy basis and for mutual benefit."

Socialist economic integration as a general condition for the growth, efficiency and proportionality of the economies involved does, however, not only strengthen each individual CEMA country's economic potential, it also makes possible an ever more effective use of the economic potential of the CEMA countries as a whole on behalf of the socialist community of states. The projects in socialist economic integration thus aim at strengthening the economic efficiency of each CEMA country and of the community of these countries on the whole by creating the conditions for more efficient economic management to ensure dynamic economic growth that makes possible the larger dimensions needed for the distributable end product.

A decisive role in this process attaches to the deepening in the division of labor and cooperation in science, technology and production among the fraternal socialist countries and to foreign trade, which increases as the result of our division of labor. The development of socialist economic integration and its practical handling place high demands here on social management and theoretical work, mainly in economics. In elaborating practicable proposals for a continued systematic structuring of this process we shall have to consider still more definitely that production intensification and greater efficiency belong among the most important criteria for the degree of maturity in the developed socialist society. At the same time, efficiency increasingly becomes a crucial yardstick for how well the advantages of socialism are realized. And that precisely is the reason why an increasing use of our international division of labor plays such a special role in constantly deepening our intensification. Our party therefore is dedicated "to the full use of the advantages of international socialist division of labor and cooperation, which is a basic prerequisite for improving the efficiency of our economic activity and for perfecting our production structure."5

Cooperation With the Soviet Union of Decisive Importance for our Economic Development

GDR history is tantamount to the history of growing intensive and successful economic cooperation with the USSR and the other countries in the socialist community of states. These economic relations from the very beginning belonged among the fundamental development conditions for our country and furthered its advances in turning it into a politically and economically stable partner of the CEMA countries, especially of the USSR.

The process through which socialist economic integration develops inevitably assigns an ever greater role to the Soviet Union. It has a decisive share in jointly solving the economic and scientific-technical tasks facing the

CEMA member countries. The high stage of development of the Soviet economy and, in particular, the long-range plans of Soviet industry offer a broad field for penetrating international production specialization and cooperation and for the exchange of finished industrial commodities between the USSR and the other CEMA countries. And as a matter of fact, mutually advantageous economic and scientific-technical cooperation between the GDR and the USSR keeps broadening constantly: "The range and scope of these relations and their quality justify our talking about an ever closer interlinking between the GDR's and the USSR's economies."

There has been great continuity and stability in the development of the GDR. especially since our eighth and ninth party congresses—and quite in contrast to what has been happening in the capitalist countries. Our republic's important advances could be made mainly because our party lets itself be guided consistently by the basic economic law of socialism and is implementing the main task, decided on by the eighth and confirmed by the ninth party congress. Through the successful solution of this task, approximately nine—tenths in our increased industrial output came through our greater labor productivity by way of intensification. And our increasingly successful mastery over our scientific—technical progress played a decisive role in this.

The process of expanded socialist reproduction contains its phases, which affect and stimulate each other, in a dialectical unity. In practical economic policy, we must still better control this reproduction process in its unity. This includes—because, and as an expression, of the ever closer interlinking of our economies—the perfecting of the substance and forms for coordinating the plans and the scientific—technical and production cooperation among the CEMA countries. International specialization and cooperation, especially for final products, is gaining an increasing influence on the structure of our exchange of goods and services, especially with the USSR. That affects the resources available to our economy, the supplying of these resources to important areas, and the efficiency in our cooperation.

On the basis of stable economic growth in the Soviet Union and the GDR, the volume of mutual trade between these two countries in 1978 came to 24 times as much as it was in 1950. The Soviet Union is our biggest economic and trade partner, and the GDR has for many years been the largest trade partner of the USSR. The GDR's share in the Soviet foreign trade turnover in 1977/78 was almost 11 percent. In the outcome of our increasing division of labor and cooperation, mutual trade between the USSR and the GDR will rise to circa 180 percent during the 1976-1980 Five-Year Plan period.

The GDR gets from the USSR equipment for our energy industry and mining, road building technology, Diesel locomotives, tractors, machine tools, rotary cranes, trucks and automobiles, aviation equipment and, especially, raw materials and other materials vital for our economic development such as petroleum, pit coal, ores, natural gas, iron, nonferrous metals, cotton, lumber and cellulose. The importance these imports have for the stability

and growth of the GDR economy is reflected by the high proportion of imports from the USSR in total GDR imports for any particular product.

Along with our imports of primary energy sources and industrial raw materials, which are so decisive for our economic development, it is the import of industrial installations and modern means of rationalization from the USSR that has increasing importance for the GDR economy. Already, circa 30 percent of the total GDR imports from the Soviet Union accounts for products in machine construction. And this proportion keeps growing on the basis of international production specialization and cooperation between our two countries.

The GDR has supplied the USSR for many years with rolling-mill equipment, forging and pressing equipment, freighters, fishing vessels, cross-country tractors, refrigerator trucks, farm equipment, equipment for the light, foodstuffs and polygraphic industries, means of communication and other things. For most of our export branches, the USSR is the most important importer. Thus far more than 40 percent of the export products of our metal processing industry went to the USSR. In many branches this share goes beyond 50 percent, in some of them even to 80 percent and more. Many commodities with which we supply the USSR bear our country's highest guarantee seal and are also much in demand on other international markets.

The Main Lines in our Economic and Scientific-Technical Cooperation

Both economies have already greatly benefited from the scientific-technical and production cooperation between the USSR and the GDR. Mutual trade is developing most dynamically. The import-export volume between our two countries has grown greatly and keeps growing. "The commodity exchange between our republic and the Soviet Union will between 1981 and 1985 reach a volume of R 48 billion, or M 240 billion. That is unprecedented in the development of trade between two states." At the same time, the GDR's share in foreign trade turnover with the CEMA countries at large has been very high and has shown a stable development.

Economic integration between the GDR and the USSR in important economic and scientific-technical fields increasingly gains top positions in science, technology and production and provides great labor productivity and efficiency, the basis for ever better satisfying the growing needs of the population in our countries. With that in view, the Ninth SED Congress oriented us to three decisively connected main lines in economic cooperation: Ensuring over long range GDR energy and raw material supplies, partly also by taking part in expanding raw material production in the USSR; close interlinking of our research and science potentials; and the further development of long-range production specialization and cooperation.

The decisive way for bringing these three main lines of cooperation to realization, in the spirit of the 7 October 1975 friendship, cooperation and mutual assistance treaty, is the close interlinking of our countries'

material and intellectual potentials for solving the great common tasks ranging into the far distant future and aimed mainly at strengthening the material-technical basis in both countries' economies.

A higher speed in developing our cooperation became possible through the production specialization and cooperation program for the USSR and the GDR up to 1990, which was concluded on the occasion of the 30th GDR aniversary. On its basis, the combination of our economic and scientifictechnical potentials will make further headway and, in our common interest, more perfect solutions will be achieved for making our economies highly efficient in close cooperation with the other CEMA countries. This involves primarily the further perfecting of our production structure in conformity with the requirements of scientific-technical progress; production concentration and achieving optimum production series, which will make possible the introduction of highly productive production methods; the development of the most modern technologies, which will ensure a great conservation of raw materials, fuels and material; joint measures in the field of socialist rationalization; the further development of stable relations between the R&D institutions of our two countries; and a further strengthening of our countries' export capacity.

In connection with our continued economic growth and the resources needed for that, it becomes increasingly important to ensure our countries' fuel and raw material basis and to gain a higher degree in the refinement of the raw materials and fuels employed. Securing the stable, long-term raw moterial and energy supplies is an indispensable prerequisite for maintaining the stage of development reached in our social production and for further economic growth. On solving the tasks in integration connected with it, the fulfillment of our parties' economic and sociopolitical objectives, our economic proportionality, and the gradual development of our populations' material and cultural standard of living directly depend. Our party program emphasize the need for gradually forming an integrated fuel and energy economy for the CEMA countries. For the GDR, that is of special importance. What with all the efforts at developing our own raw material basis, the most economical use of raw materials and fuels, and all measures toward reducing the specific raw material and energy consumption, large volumes of fuels and raw materials still have to be imported. That cannot be otherwise in view of our own limited raw material deposits. At present, circa 60 percent of our total raw material requirements is satisfied through imports.

Valuta prices for raw materials have, as one knows, risen much faster in recent years than the prices for finished industrial goods. Each ton of raw materials imported thus must be financed by more exports, by more of a social expenditure.

Moreover, within the framework of the joint investment efforts of the CEMA community, the GDR also has to produce more in the field of raw materials and fuels.

The GDR is making great efforts to solve its raw material and fuel problems. In 1979, for example, circa 60 percent of all industrial investments went to the raw material branches including chemistry. Thus it is all the more important to tap decisive potentials for our continuing our economic performance development through the most thrifty handling and most rational use of raw materials, fuels and energy sources. To that end it is necessary further to reduce the mass and energy expenditures for many products and to extend their working life. A resolute struggle for reducing our specific material consumption is of great importance for the further economic growth of the GDR economy. Also with regard to the measures in international production specialization and cooperation, reducing the use of material is an essential factor in economic decision—making.

Scientific-Technical Cooperation--A Task Strategic in Type

A rigorous intensification of social production in our countries is inseparably connected with their scientific-technical cooperation in jointly using the scientific-technical progress in important fields. In view of the current stage of scientific-technical and technological development in the world, of the modern trends in those developments with their promises of highest economic results, and of the strategic tasks and available research potentials of the CEMA countries in these fields, the concentration of research capacities available and the creation of new ones has become an objective requirement. That way, scientific-technical progress can be greatly accelerated in our countries. This is proven by practical experience.

Thus, especially since the Eighth SED Congress, GDR-USSR scientific-technical cooperation has developed with success. The focal point here have been new procedures, technologies, equipment and final products that are of great importance for scientific-technical progress and for great economic efficiency.

This cooperation within the framework of government agreements and agreements between the ministries entails all important branches in material production—the energy industry, metallurgy and chemistry, electrical engineering and electronics, including micros lectronics, machine building, the construction industry, the light industry and agriculture. This solves important questions in assuring, long—term, the GDR's energy, raw material and fuel supplies, creating highly productive procedures, technologies, machines and equipment, reconstructing of enterprises and intensifying existing production processes and production specialization, especially for final products. And mainly, important preconditions are being created for boosting our output with the help of microelectronics.

This cooperation brought important results in the development and production of optical-mechanical and electron-ray equipment, and in the joint development for making high-pressure polyethylene-polymer 50 and 60. Space research has successfully developed through this cooperation, especially in the long-distance exploration of the earth's resources, for which the GDR has supplied multispectral cameras and other devices.

The cooperative development of plasma melting furnaces was an outstanding cooperative achievement. Cooperation is developing successfully in the fields of electronic computer technology, the production of metal working machine tool systems with digital controls and processing systems, the manufacture of new products in polygraphic machine construction, optics and optical-mechanical devices and other fields.

The science academies of our countries have significantly enhanced their cooperation too. That pertains in particular to their having created the scientific foundations for energetics, the use of natural resources and the production and rational application of new materials; lead-time research for microelectronics, opto-electronics and scientific equipment construction; space research and joint projects in exploring the foundations of biological processes. Our forms of scientific-technical cooperation, on a high level and in productive partnership, have advanced so much that scientific-technical devices, machines and highly productive equipment can be developed on a par with highest international standards.

Tasks for the Far Distant Future

Specialization and cooperation between the USSR and our republic up to 1990 is of decisive importance for the further intensification of the economic reproduction process and the production concentration in the GDR. Already the GDR's production potential is intertwined with that of the USSR in industrial areas such as installation construction, machine tools, electrical engineering and electronics, the energy economy, the chemical industry and others. The growing interlinking of the two economies brought it about that the export proportion of specialized products in overall GDR exports to the USSR was increased to 28 percent; by 1980, it is to go up to 35 percent. For the products in machine construction, the proportion of specialized commodities in the export of machine construction products, at more than 50 percent, all ady exceeds this economic average. A special point ought to be made of the high growth rates of USSR exports to the GDR in the field of the metal processing industry in the 1970's. In 1978, deliveries of such machinery and equipment came to 782 million transferable rubles, circa 23 times of what the volume had been in 1960. That is more persuasive evidence for the commodity structure trend in the trade between our two countries and its conforming to our scientific-technical progress.

Production specialization and cooperation between our two countries goes hand in hand with out scientific-technical cooperation. The measures in both areas more and more assume the character of correlated planning activity in which the coordination of the economic plans, CEMA's long-term target programs for decisive areas in material production, and the GDR-USSR production specialization and cooperation program up to 1990 complement one another.

Our countries' economic and scientific-technical cooperation aims at increasingly better satisfying, at reduced public expenditures, the needs of

the economies and the population in our countries, further raising our export capacity vis-a-vis the CEMA countries and the nonsocialist economic region in terms of highly efficient end products including complete installations, and also using production specialization and cooperation for paying for the imports from the nonsocialist economic region.

The traditional division of labor between our countries is of great importance for end products. In this, stable reciprocal relations based on long-term agreements have set the pace for important branches in machine construction and ensure its long-term development. This division of labor also increasingly includes our specialized production that aims at a more efficient manufacture of final products by making variably usable ancillary parts, elements, components and other spare parts. In all this, the concrete economic conditions of the countries have to be taken into account, and high efficiency and rapid scientific-technical progress have to be ensured in all cases.

Also to be taken into account are the demands of the socialist and capitalist world market for operationally ready installations with high technical and technological use characteristics and appropriate efficiency. One of the key problems in the use of scientific-technical progress and its application in production is further improving the technical parameters and product qualities in conformity with the demands raised in international trade.

The USSR-GDR production specialization and cooperation up to 1990 will be further perfected in close interaction with our countries' scientific-technical cooperation. This involves mainly the effective production of new commodities, the further development of the stable lines of our international division of labor, assigning new aggregate systems to international specialization, the perfecting and developing of modern technologies, procedures and installations for energy production and conversion, the manufacture of highly polymeric materials, photochemical and recording materials, the use of microelectronics, a new generation of ADP equipment, metallurgy and the construction industry, rationalization of navigation and the port economy, and the foodstuffs and luxury food items industry.

The economic interlinking between the GDR and the Soviet Union now has reached a stage where the combination between national science and technology planning, investment planning, intensification and rationalization can help tap significant reserves for improving efficiency and quality production in both countries. The continued intertwining of our two countries' economies on the basis of the production specialization and cooperation program up to 1990, being implemented in close connection with the long-term target programs for CEMA cooperation, provides our secure long-range planning with a solid foundation. "The GDR-USSR production specialization and cooperation program up to 1990 will once again demonstrate to the whole world that the rapprochement process of the GDR and the USSR economies is progressing and is irreversible."8

FOOTNOTES

- "Programm der Sozialistischen Einheitspartei Deutschlands," Dietz publishing house, Berlin, 1976, p 32.
- Comrade Erich Honecker, "Bericht des Zentralkomitees der Sozialistischen Einheitspartei Deutschlands an den IX. Parteitag der SED" (SED Central Committee Report to the Ninth SED Congress), Dietz publishing house, Berlin, 1976, p 14.
- Comrade Erich Honecker, "Aus dem Bericht des Politburos an die 11.
 Tagung des ZK der SED" (From the Politburo Report to the 11th SED Central
 Committee Plenum), Dietz publishing house, Berlin, 1979, p 32.
- 4. Ibid., p 33.
- 5. "Programm . . .," loc. cit., p 33.
- Comrade Erich Honecker, "Bericht des Zentralkomitees . . .," loc. cit., p 77.
- Comrade Erich Honecker, "Aus dem Bericht des Politburos . . .," loc. cit., p 32.
- Guenter Mittag, "Mit politischem Kampfgeist fuer eine hoehere Effektivitaet. 11 Tagung des ZK der SED" (With Political Fighting Spirit for Higher Effectiveness--1lth SED Central Committee Plenum), p 126.

5885

CSO: 2300

GERMAN DEMOCRATIC REPUBIC

EAST BERLIN JOURNAL QUOTED ON INCREASED INDUSTRIAL ACCIDENTS

Bonn IWE-TAGESDIENST in German No 17, 31 Jan 80 p 1

[Report from Berlin: "Damage From Accidents in GDR Economy 'Has Rapidly Increased'"]

[Text] "There has been a rapid increase" in the damages caused to the GDR economy as the result of breakdowns. According to a report by the East Berlin magazine NBI (No 4/80), technical shortcomings are among the most frequent causes of breakdowns. Frequently machines and installations are not adequately maintained even if they are obsolete. According to the report, general repairs are at times made too late. It also happens, the report says, that operating instructions and enterprise regulations are not sufficiently observed and technological processes are not completed according to directions. The magazine in this connection reprimanded violations of duty and negligence on the part of the responsible managers in the enterprises. According to the magazine, they frequently avoided altercations and silently accepted "the scissors between the required safety and the production tasks."

During the past year several serious breakdowns occurred in GDR agriculture. In an explosion in the VEB Riesa 0il Plant 10 people were killed and 50 were injured. Three leading employees were sentenced to long terms of imprisonment because of violations of duty. A fire in the ammonia plant of the Piesteritz Nitrogen Plant in Halle Bezirk caused material damage amounting to M 60 million and production losses of about M 60 million. Cause of the fire in the up-to-date plant imported from the West was unbelievable carelessness: In the course of general repair work several safety valves were incorrectly put together and installed.

8970

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SED DEMANDS INCREASED 1980 AGRICULTURAL PRODUCTION

West German Commentary

Bonn IWE-TAGEDIENST in German No 33, 28 Feb 80 p 2

[Report from Berlin: "SED Leadership Demands Increase in Agricultural Yields in Excess of Plan." A translation of the East Berlin NEUER WEG article referred to below follows this commentary.]

[Text] In a resolution, the SED Politburo has demanded that agricultural yields in the GDR be considerably increased. According to the civil service periodical NEUER WEG (No 4/80), the SED leadership demands, among others, that the planned crop production in the GDR be exceeded by an average of at least one centner per hectare of agricultural acreage. The yields must be increased, especially for cereals, sugar beets, vegetables and forage crops. The party leadership points out that each year the GDR must import larger amounts of feed grains. In view of the American embargo against the Soviet Union, there can no longer be any doubt about "the strategic role of cereals in the international class struggle."

The SED requires livestock farmers "to raise I healthy calf for every cow and, starting with the first litter, at least 16 young pigs for each sow in 1980." The utilization of the present livestock production potential is to be improved through better forage use as well as through good livestock keeping and care. In addition, thoughts and actions pertaining to energy and material economy must continue to be implemented. Starting from these objectives, the party leadership has decreed, the "competitive commitments of agricultural enterprises—including those which have already been finalized—must be thoroughly examined, complemented and renegotiated."

Delineation of Goals

East Berlin NEUER WEG in German Vol 35, No 4, 1980 signed to press 14 Feb 80 pp 129-134

[Article by Gerhard Grueneberg, SED Politburo member and Central Committee secretary for agriculture: "Solving the New Tasks With a View Toward the 10th Party Congress]

[Text] With the 11th Session of the Central Committee, the time has come to prepare the 10th SED Congress. All party organizations must now thoroughly understand the meaning of the resolutions of this Session in the light of Comrade Erich Honecker's speech to the secretaries of the 1st Kreis, and organize the struggle toward their implementation in all areas.

In doing this, we shall further realize the two closely related agropolitical objectives defined in the party's program, which provide for an increase in production and for social evolution in the country. Several resolutions taken by the Politburo on 22 January will also help fulfill these tasks. They determine the guidelines for translating into facts the tasks set by the 11th Session of the Central Committee and for preparing the 10th Party Congress in the agricultural sector.

Onward Toward Our Party's Program

Positive results have been obtained by the orientation toward intensification of socialism and the progressive transition to industrial production methods on the road to cooperation. In supplying foodstuffs to the population, the tasks assigned have been fulfilled as planned and exceeded.

During the past 4 years of the current Five-Year Plan, state production has been achieved as planned for the main crops, with the exception of sugar beets. In animal production, the goals of the Five-Year Plan have been fulfilled so far, some have been exceeded. This has been achieved especially by an increase in beef herd size.

Full Use of All Means To Fulfill the Plan

If the population has been provided with foodstuffs in spite of increased consumption, it is primarily because of the strenuous and creative work of cooperative farmers and workers and of specialists in agriculture, forestry and foodstuffs production. We can and we must rely on these again in 1980.

Agricultural production, by the state, of 2,300 kilotons of meat, 7,800 kilotons of milk, and 4,430 million eggs must be ensured. For the development of crops, a gross production increase of 40 decitons of grain-equivalent units per hectare of agricultural acreage is planned. Cereal yields should

reach 37 decitons per 'ectare. The main objective is to guarantee the level of agricultural production, by the state, which has already been reached, and to increase it further by a rational use of the funds. To fulfill the plan, we must mobilize all our domestic reserves by utilizing more effectively the funds now available or to be provided under 'he plan, including society's working capacity. Every party member must ake a clear-cut political stand on this. He must foster the necessary creative atmosphere in his area of responsibility, and he must orient all his activities--political, economic and organisational--toward this goal.

The daily fulfillment of the plans requires that a broad and comprehensive competitive initiative be unfolded in each LPG, on each state farm, and in all other enterprises. An example is being set by the Wulfersdorf crop production cooperative (Wittstock), by the Bennewitz animal production LPG (Kreis Wurzen), the Milchhof Berlin state farm, the Zwickau sloughtering and meat processing plant, and the Salzwedel state forestry enterprise. Their commitments serve as orientation for the socialist competition this year.

To Orient Decisions Toward Concrete Goals

The Politburo resolution of 22 January 1980 is setting a series of concrete tasks aimed at developing our reserves to increase production within the socialist competition. In the LPG's, on state farms and in cooperative crop divisions, natural and economic production conditions are to be taken advantage of to achieve considerable yield and performance increases in order to exceed the planned crop production of the republic by an average of at least 0.5 decitons of grain-equivalent units per hectare of agricultural acreage. But, in some LPG's and some state farms, reserves of up to 3 or 4 grain-equivalent units per hectare can be found.

In all animal production _PG's and state farms, as well as in their cooperative facilities, there is a continued and daily effort to fulfill the plan, and a struggle for high breeding yields, the objective being to raise I healthy calf from each cow and, starting with the first litter, at least 16 healthy young pigs from each sow during 1980.

In directing socialist competition, all thoughts and actions pertaining to energy and material economy must continue to be defined and implemented. Starting from these objectives, the competitive commitments of the LPG's, state farms and other enterprises—even those which have already been finalized—must be thoroughly examined, complemented and renegotiated.

From past experience in LPG's and VEB's, the following generalizations can be drawn for the broad political direction of the competition in agriculture, forestry and foodstuffs production:

- Thorough political work of the comrades in the collectives results in a high degree of willingness to develop new reserves in order to increase production by improving work quality, using material funds more sparingly, and putting working hours to better use.
- An extensive breakdown of the plan by brigades increases the cooperative farmers' and workers' responsibility for the whole plan. The complex competitive programs are then supported not only by numerous individual and collective commitments, but also by suggestions for improvements and innovative ideas.
- An active competition direction requires that performance comparisons be organized regularly within LPG's, state farms and other enterprises, as well as between enterprises, the objective being the adoption of the best working practices.
- Finally, competition must achieve unity in setting economic and social objectives. In animal production LPG's, especially, much initiative still remains to be developed to rationalize and improve working and living conditions.

A Political Task--To Improve Yields

Special efforts will be required in 1980 to increase and stabilize crop yields. Beginning with the preparation of spring cultivation, intensive political and organisational work will be required. This is where the largest reserves lie; they can increase our contribution to the national income of the GDR. First of all, we must achieve an upturn in yield trends for cereals, sugar beets, vegetables and forage crops. This is a concrete political task which has been set by the llth Session of the Central Committee.

We know that our country must import larger amounts of feed grains every year. This involves considerable economic expenditures. But that is not all. The shameless as well as useless blackmailing attempts of American imperialism against the Soviet Union no longer leave any doubt as to the strategic role of cereals in the international class struggle. This is why a politically responsible attitude toward cereals is required everywhere. We must not only increase production, but also put each kilogram to the most effective use.

To Overcome Differences More Rapidly

The important differences which exist between bezirks, kreises, LPG's and state farms under similar natural and economic production conditions show

that all reserves are far from being developed. At the core is, now as ever, the problem of increasing the yields per hectare, reducing losses in connection with an economically responsible rate of cultivation, and ensuring raw forage production.

In all kreises and bezirks, we must ensure that the total acreage cultivated in cereals is 100 percent of the planned acreage. A fundamental task to fulfill the objectives for 1980 consists in gradually eliminating the unjustified discrimination in production results which exists between comparable LPG's, state farms and other enterprises, including the foodstuffs industry, and between kreises and bezirks. This discrimination is not always objective. It has many subjective, mainly management-related causes. These must be overcome more resolutely, more rapidly and more effectively.

Experience in the best bezirks, kreises and enterprises shows that intensive utilization of the soil and of the total agricultural acreage—especially grasslands—constitutes a decisive basis for a stable productivity increase and a high degree of effectiveness of agricultural production. The soil is and remains the main agricultural means of production and a decisive source of social wealth.

The most important task is to increase steadily soil fertility in all LPG's and state farms, as this is a prerequisite for obtaining high and stable yields in the coming years. Great efforts are required to provide organic substances for the soil and to achieve a positive humus balance in all crop producing LPG's and state farms. Now as ever, the largest source of organic substances are the animal production LPG's and state farms which, according to their statutes, are also largely r sponsible for it.

Long-Term Soil Utilization Programs

In connection with the report of the Schwerin bezirk management, the Politburo has set the task of preparing a long-term program for the improvement of soil utilization in each bezirk and in each kreis. This should provide a basis for the long-term stable development of crop production in LPG's and state farms, and for the planned intensification of production. The measures required will be reflected in the intensification concepts of the enterprises.

The preparation of the long-term program for the improvement of soil utilization is a task of considerable political and economic significance. It cannot and should not be left to specialists, but must deliberately include cooperative farmers and workers and requires firm direction by party and state organs.

Full Utilization of Production Potential

The necessary stabilization and increase in animal production this year and in the following years requires further intensification of animal production.

For this reason, the utilization of the production potential and the planned reproduction of livestock herds must stand at the focus of the leadership activities of party and state organs. We must take full advantage of the existing production potential of our livestock herds through improved feed utilization and better keeping and care. The best way to improve the quantitative and qualitative livestock feed supply is to increase the cereal and raw forage production, especially the production of protein-rich feed crops. Under our circumstances, it is absolutely necessary to produce raw forage in quantities and quality as prescribed by standards. All possibilities of raw forage production, such as better grassland management, intensive pasture farming, high-yield forage crop production, including intercropping, must be fully utilized.

The first task of agriculture, forestry and the foodstuffs industry is also to improve considerably the ratio between expenditure and results. The continued social intensification of our agriculture requires that steadily improved results be obtained with the funds now available or to be provided under the plan. The decisive way to achieve this is through consistent application of the knowledge acquired in science and technology and of the experience of the best. State organs must give concrete on-site support to the LPG's, state farms and enterprises in organizing reproduction on scientific bases, in enforcing the adoption of scientific and technological progress, in adopting socialist management methods and, above all, scientific methods of work organization, which will permit an effective utilization of working hours, technology and all production conditions.

New Criteria for Work Quality

The high demands made when accomplishing economic tasks require that new criteria of work quality be set everywhere. Since work quality depends primarily on the political consciousness of the people, on their attitude toward our socialist society, the enterprise for which they work and their work, it must increasingly become a subject for political leadership activities and socialist competition. In all important areas where materials are used, from fuel to decreasing harvesting losses and ensuring higher breeding results or a high slaughter output—everywhere, down to the brigades and collectives of cooperatives and enterprises, concrete material utilization standards, or new sets of standards which will force struggle and discussions are to be prescribed. They must reflect the new criteria. Their implementation must be controlled and accounted for at all times. They will serve as a basis on which to organize concrete interest and responsibility.

Better Use of Assets and Possibilities

To increase performances in all areas of agriculture, we must make a more purposeful use of investments to achieve rationalization and reconstruction in connection with scientific and technical progress. The objective of our rationalization policy is to produce more with the funds available,

and to attain higher work productivity. At stake is the preservation of jobs and working hours. We are forced to solve more and more problems with the labor force available to us. Occasional hiatus in mechanization must be corrected by rationalization measures. Finally, we must also continue to improve working and living conditions, step by step.

One of the most important rationalization measures in '980 and also in 1981 will be, we believe, the adoption of the silo construction program which will permit, within the shortest possible time, to reduce considerably the losses of forage, to improve the quality of silages, and to make accessible the true reserves of the forage industry.

In many LPG's, the application of the new statutes and internal rules as well as the implementation of socialist management methods have created the conditions necessary to obtain better results. Experience has shown emphatically that both the power of each cooperative and cooperation are most fully taken advantage of when all take an active part in administration, planning and control, in a democratic manner, i.e. when the statutes and internal rules are given new life everyday. To achieve an all-around consolidation of LPG's and state farms, to increase production, improve their effectiveness, reduce costs, make better use of society's working capacity and of technology, we must utilize still more effectively the advantages and possibilities of division of labor and cooperation.

To Form Party Groups and Train Them Well

The resolution of 22 January 1980 on "Principles for the Work of the Cooperation Council in Socialist Agriculture", and the resolution on "Tasks and Working Methods of the Kreis Council for Agriculture and the Foodstuffs Industry" form the bases for work in this area. In all cooperation councils, party groups should now be formed in accordance with the party statutes and properly trained by the kreis administrations. The party groups are a guarantee that the cooperation councils will measure up to their tasks and develop correct working methods. The documents mentioned are of paramount importance for the further social development of agriculture. They create comprehensive conditions to continue successfully the time-tested policy of the party, to prepare and realize everything with and through cooperative farmers. To orient work everywhere in the direction indicated by these documents is a concrete preparation for the 10th Congress of the Socialist Unity Party of Germany.

TECHNICAL DEVELOPMENT OF RAILROAD REVIEWED

Budapest VASUT in Hungarian Nov-Dec 79, Jan-Feb 80

[Nov 79 pp 8-9]

[Text] It is well known today that 70 percent of the fixed assets of the Hungarian State Railroads were totally destroyed during World War II. Forty-one percent of the double track lines, 33 percent of the single track trunk lines, 23 percent of the feeder lines and 38 percent of the stations' track networks were impassable. Thirty-nine percent of the shunts, most tunnels and bridges were destroyed.

Among the buildings, 38 percent of the dispatch and office buildings, 51 percent of warehouses and depots, 50 percent of the haulage buildings and workshops, 43 percent of the residential buildings were in ruins. Ninety percent of the haulage vehicles and 85 percent of the cars were missing.

Railroad reconstruction started as early as 1945, with the help of the Soviet Union and with the persistent and heroic work of the railroad workers, but during 1945-46 mainly clean-up, repair and reconstruction operations were undertaken. During 1945-47, the railroads received 72 million forints in state subsidies, most of which was applied to the reconstruction of the railroad bridges.

The Three-Year Plan

It was started on August 1, 1947 and was completed 7 months earlier than planned at the end of 1949. The First Three-Year Plan of the national economy earmarked 724 million forints for railroad development, of which 703 million was actually applied. It should be noted that at that time we had no replacement budget, so both new investments and replacements were made from that amount.

Most part of the development was reconstruction during this period. The second set of tracks between Hatvan-Miskolc, Szekesfehervar-Szabadbattyan, and Szolnok-Ujszasz, as well as the missing tracks between Borgond-Szabadbattyan were restored. We built the second set of tracks between

Miskolc and Sajoecseg, and created new railroad connections between Zirc-Dudar, Selyp-Petofibanya and Mor-Pusztavam. The stretches between Tokod-Almasfuzito, Hortobagyi Halasto-Ohat-Pusztakocs, as well as between Rakamaz-Tokaj were upgraded to first class. The construction of the delta track at Banreve was motivated by the need to serve the local markets.

Electrification works were carried out only to reconstruct the completely destroyed cables, substations and equipment of the Budapest-Hegyeshalom electrified line.

We carried out expansion work at the shunting yards of Budapest-Ferencearos, Miskolc, Hatvan, Nyiregyhaza, and started the expansion at Zahony station. We reconstructed part of the East [Keleti] Station building and the dispatch station of the South [Deli] Station in Budapest. Almost 150 buildings, 30 warehouses, 29 locomotive depots and 36 workshop buildings were repaired or reconstructed. Even during this early period we built numerous new dressing and wash rooms, bathrooms, sports facilities and playgrounds.

During the three-year plan, we spent 21 percent of the investment budget on the replacement of the destroyed bridges and passages. The reconstruction of the railroad bridge at Budapest, the bridges across the Tisza at Szolnok, Tiszafured, Zahony and Tokaj, the bridge across the Zagyva at Szolnok, as well as the bridge across the Ipoly at Szob were major achievements.

Significant reconstruction work was done in the area of telecommunications and safety equipment as well. Electro-dynamic devices were installed at the stations of Budapest-Ferecvaros and Szekesfehervar. The safety equipment of the Hatvan-Miskolc line was remodelled, and all in and out signal devices were put into operation on the trunk lines. The cat's backs at the shifting yards of Debrecen, Miskolc, Hatvan, Szolnok and Rakos were provided with modern signalling equipment. Border stations received modern letter-printing telegraphs.

As freight handling installations were being replaced during the three-year plan, a new 8,000 sq.m. warehouse was built. Among haulage equipment, 12 turntables were replaced first. The engine-house at Hegyesnalom was totally rebuilt, and a new engine-house was built in Zahony. The reconstruction of the rolling stock repair shops, the purchase of modern machine-tools and the construction of social buildings was started with a relatively modest amount--35 million forints. The new painting facilities of the main repair shop at Istvantalek (today Jeno Landler Repair Shop) were completed at that time at a cost of 2.1 million forints.

In 3 years, 15 steam locomotives, 4 electric locomotives, 15 motorized cars, 135 passenger and baggage cars and 5032 freight cars were made operational. At the same time, 20 steam locomotives, 52 four-axle passenger cars, 118 covered and 173 open freight cars, as well as 8 narrow-gauge locomotives and 11 motor cars were purchased.

As a result of the successful and early completion of the three-year plan, most part of the railroad equipment was reconstructed, which enabled the railroad to perform at a level exceeding that of 1938.

First Five-Year Plan

The plan period was characterized by the rapid development of industry and agriculture, which posed increased demands on transportation, including the railroads.

The performance of railroad transport increased considerably. Thus, 335 million passengers and 61 million metric tons of freight were transported in 1954, against 181 million passengers and 39 million ton freight in 1950. In 1954, the average distance travelled was 30 km, and the average freight transport distance 131.5 km. The average load of freight trains increased during this period from 624 to 709 metric tons. However, travel speed of freight trains decreased from 16.3 to 12.3 km/h. Average turnsround time of freight cars was 4.5 days in 1954.

During the first five-year plan 3,294 million forints were spent on rail-road development. About 60 percent of this amount served for network development, 30 percent for rolling stock purchases, and 10 percent for the development of other railroad equipment.

New railroad lines were built during this period between Kornye-Oroszlany, Bodajk-Balinka, Ajka-Halimba, Dudar-Dudarbanya, Mor-Pusztavam and Vac-Aszod. We built the lines serving the Duna Metallurgical Works, upgraded the existing ones and built the factory track network.

The development of the national economy required a capacity increase of the main railroad lines. The construction of the second track between Miskolc-Kazincbarcika, Miskolc-Satoraljaujhely, Rakos-Rakoshegy and Dunaharaszti-Szigetszentmiklos served this purpose. The passenger and switching station of Budapest-Ferencearos, as well as of the track network of Szekesfehervar, Miskolc, Hatvan and Varpalota stations were further expanded. The development of Zahony station was also continued.

During this plan period, we built a delta track at the stations of Cegled, Szeajol, Bekescsaba, Kecskemet, Hatvan, Gyor, Kunszentmiklos-Tass to increase transit traffic.

Depots and loading tracks were built to develop commercial services. The piece goods transloading station at the West [Nyugati] Station in Budapest was of outstanding importance.

During the course of railroad electrification, the raised cables and the equipment between Budapest and Hegyeshalom were totally repaired. The electrification of the Budapest-Miskolc trunk line was initiated.

In order to facilitate railroad service and to make travel more comfortable, new dispatch buildings were built at the stations of Nyiregyhaza, Szekes-fehervar and Martfu.

There was also considerable progress in the area of telecommunications and safety equipment. Line safety equipment was installed between Budapest-Szolnok-Szajol, Budapest-Tatabanya-felso and Siofok-Balatonboglar. Among the station safety installations, the ones built at the stations of Budapest-Ferencearos and Tatabanya-felso deserve mention.

Telecommunication equipment, of vital importance for the safety of railroad transport, was also rebuilt and modernized at a cost of 64 million forint.

As a result of network development, at the end of the First Five-Year Plan we already had 843 km of double-track lines, and a 1,800 km long network was capable of carrying axle loads exceeding 20 tons, against 273 km before the war. Nine hundred km tracks could handle speeds of over 100 km/h.

Relatively little was spent on rolling stock development during this plan period. In 5 years, we purchased 17 steam locomotives, 3 electric locomotives and 36 diesel motorized cars. Seventy-five steam locomotives were rebuilt or modernized. Two hundred passenger cars were added to the rolling stock, but also numerous damaged passenger wagons were repaired at a cost of 80 million forints. Fifty-two million forints were spent on the repair of freight cars returned from the West, and 3,500 freight cars of different types were purchased.

As a result of the modernization of haulage, electric locomotives were responsible for 8.5 percent of the transport capacity, diesel locomotives for 2.4 percent, but steam remained the dominant mode of traction—with 89.1 percent.

A considerable part of the remaining investments served the development of the different specialized services and the improvement of the railroad workers' living standards. Residential buildings were built at the stations of Hatvan, Kecskemet, Banreve, Szolnok, Pecs and Zahony. In Miskolc, a residential block was built at Selyemret. Barracks assuring undisturbed rest for railroad workers were built in numerous places, among others at the stations of Debrecen, Nyiregyhaza, Budapest-Jozsefvaros, Dombovar, Godollo, Putonok, Ajka, Veszprem-kulso, Cegled, Miskolc and Lajosmizse.

To make car switching safer, the illumination of stations and switching yards was improved with an investment of 26 million forints. Among developments serving railroad workers' health, the opening of the MAV Children's Hospital on Szabadsaghegy and of the new medical clinic at Bekescsaba deserve mention.

In 1953, the operating room, the hydrotherapy section and the laboratory of the MAV Hospital in Budapest received modern equipment. In 1954 a new medical clinic was created in Debrecen.

A day care center and nursery were built in Szombathely, Budapest and Dombovar during the plan period, and the cultural centers in Dombovar and in Hatvan were expanded.

Even these briefly listed investments eloquently prove that we used our investment resources well during the First Five-Year Plan, and that the railroads accompanied the development of other areas of the national economy during this fast-paced period of reconstruction.

[No 12, Dec 79 pp 6-7]

[Text] After the successful completion of the First Five-Year Plan the performance of the Hungarian railroads was characterized by a certain sudden stop. The period between 1955 and 1957 had no long-range program. This circumstance was manifested in both transport services and railroad development work.

The number of passengers transported dropped one percent in 3 years, and the growth rate of freight transport also remained below that of the previous plan period.

The investment budget during these years amounted to 535 million forints in 1955, 509 million forints in 1956 and 280 million forints in 1957.

The counter-revolutionary episode of 1956 also had a disturbing effect upon the construction works. The effects became evident mainly in 1957. Industrial production of the railroads also fell behind.

Among the construction works of these 3 years, the rebuilding of the bridge across the Danube at Komarom, the construction of a second set of tracks between Kisujszallas-Ebes and Martonvasar-Erd are worth mentioning.

Automatic blocking equipment was installed between Rakos-Hatvan, Budapest-Cegled and Cegled-Szolnok. Electrification of the Budapest-Miskolc line, the expansion of the switching yard at Budapest-Ferencearos, of the transloading area of Zahony and of Szekesfehervar station continued at a slower rate. The construction of the MAV Pulmonary Institute, as well as of the dispatch buildings at Gyor, Debrecen and Szolnok stations were initiated, but these works were completed only during the following plan period.

The reconstruction of the bridge across the Danube at Ujpest and of the bridge across the Tisza at Kiskore were also initiated.

Thirty-seven percent of the investment budget was spent on rolling stock purchases. The plan still called for the purchase of 90 steam locomotives, but 12 electric and 22 diesel locomotives were also purchased. In addition to 10 motorized cars, 167 light, four-axle passenger cars and 1,200 different freight cars were also purchased. About 11 percent of the investment budget was spent on mechanization, involving mainly rolling stock repairs, haulage and track maintenance work.

We have mentioned that we had no replacement budget during the First Three-Year Plan, so both investment and replacement works were included in the investment budget. However, in the First Five-Year Plan, there was already a 2.4 billion forint budget for the replacement of fixed railroad assets, in addition to the investment budget. Most of this amount was needed for the repair of railroad tracks. From 1955 through 1957, we spent 2.5 billion forints to renew our fixed assets.

The transition period was followed by the Second Three-Year Plan. This plan period extended from 1958 through 1960 and it marked a considerable progress in both passenger and freight transport. Passenger transport increased by 35 percent, 38 percent in passenger-miles; freight transport tonnage increased by 31 percent and ton-mileage by 40 percent. Freight train load increased 15 percent in 3 years. Use of freight cars-considering the dynamic load on an axle of a loaded car--improved by nearly 10 percent during 3 years, and car turnaround time decreased from 4.13 to 3.63 days.

The forint amount destined for railroad development became higher with the considerable increase of transportation requirements, although not in the same proportion. In 3 years, almost 4 and 1/2 billion forints were invested. The increase of rolling stock had first priority for the fulfillment of the transportation tasks set: we purchased 33 steam locomotives, 93 diesel locomotives, 342 four-axle passenger cars, and 9110 different freight cars. By standardizing on the new four-axle passenger cars, we modernized our car stock. The proportion of four-axle cars within the total increased from 18 percent to 23 percent, while the proportion of wooden frame cars decreased from 77 percent to 66 percent. With the purchase of higher load capacity cars, the average static load on loaded cars increased from 14.7 to 16.8 metric tons.

In spite of the purchase of numerous diesel locomotives, steam traction still had an 88.4 percent share of the total traction capacity, and the share of modern means of traction was only 11.6 percent. Electrification of the Budapest-Miskolo line fell behind the plan due to the lack of investment resources and of electric locomotives. We only reached Fuzesabony by the end of 1960. In this period, there was an insufficient number of electric locomotives, and the stock under repair was about 50 percent.

Most of the newly purchased diesel locomotives were used for shunting services, due to their reduced capacity and performance.

During the plan period we completed the expansion work of Budapest-Ferencearos and Szekesfehervar stations. The dispatch building in Gyor was inaugurated on Railroad Workers' Day in 1958. The construction of the Debrecen station building continued at a reduced pace. The construction of the dispatch building in Szolnok was temporarily suspended. Within the development program of the area, we built 40 residential buildings in Zahony. Elmination of bottlenecks was prioritized; among others, the stations of Fuzesabony, Kiskunhalas, Pecsbanya-switching, Demecser, Sostohegy, Paszto and Kalkapolna were expanded.

In 1960, the construction of the second set of tracks between Nyiregyhaza and Zahony was initiated.

Safety equipment was being installed at an unsatisfactory pace. Only 900 km of our network had safety installations and only 50 percent of our trunk lines. In 3 years it was possible to provide 50 km railroad lines and 8 stations with safety devices.

Among the most significant investments of our railroad industry, we should mention the car repair hall built at the MAV Repair Works, the rail welding facilities at the Shunt Factory in Gyongyos. The construction of a new repair hall at the North Repair Works of MAV was also initiated.

Among the social, health and cultural investments it should be mentioned that the construction of the Pulmonary Institute in Budakesz was completed and the Educational Institute in Bodrogolasz was inaugurated.

Three and one-half billion forints were spent on the renewal of our fixed assets. In this area the renewal of tracks and the replacement of shunts were most significant. In 3 years, 735 km open line and station by-pass tracks, as well as 230 km other station stracks were replaced. In spite of this, the proportion of track mileage over 40 years old further increased.

These were the technical conditions at the beginning of the Second Five-Year Plan which lasted until 1965. Railroad performance also increased considerably during this period, regarding both passenger and freight transport. In these 5 years, the number of passengers transported increased by 17.1 percent, the number of passenger-miles by 15.7 percent, freight tonnage by 21 percent and freight ton-mileage by 29.8 percent. Within these figures (in tons), export freight increased by 77.3 percent, import freight by 30.1 percent and tran it by 42.2 percent.

Along with the increase of transportation, the most important technical-economical parameters were also characterized by progress. Thus, the average load of freight trains increased from 843 to 934 metric tons. Static load of freight cars grew by 8.8 percent and the average daily performance by car, by 20.3 percent. Average travel speed of freight trains also increased from 13 km/h to 14.6 km/h in 1960. Freight car turnaround time increased only marginally (from 3.63 to 3.6 days). The technical-economical parameters of passenger transport did not show any considerable improvement during this period.

Considerable Progress

During the Second Five-Year Plan there was considerable progress in the area of technical development as well. The share of railroad investments within the national investment budget was 8.23 percent during this period. This meant that during 5 years, a 11.2 billion forint budget was destined for railroad development. In addition to this amount, 12.9 billion forints were spent on the renewal of fixed assets.

We purchased rolling stock for 70 percent of the investment budget (7.9 billion). In 5 years, we bought 83 electric locomotives, 176 diesel locomotives and 112 steam locomotives, as well as 14,796 freight cars. The one hundred 520 series steam locomotives purchased from the Soviet Union were of great help in our difficulties. The purchase of the high-capacity (M61 and M62) diesel locomotives and (V43) electric locomotives was initiated during this period. The share of electric haulage was 16 percent, that of diesel traction, 18.7 percent, while the share of steam haulage had diminished to 65.3 percent by 1965.

With the complete electrification of the Budapest-Miskolc line and with the electrification of the lines between Miskolc-Szerencs, Miskolc-Diosgyor and Tatabanya-Oroszlany, the length of electrified lines increased to 445 km.

The increased pace of rolling stock development did not make a proportional development of the major railroad centers possible, although we invested more than planned in the development of the Zahony transloading area, and the second link between the Soviet Union and Hungary was completed. Szuhakallo-Mucsony, Gyomro, Vac stations were expanded, but the planned expansion of Veszprem-kulso, Ukk, Debrecen, Dombovar and Kobanya-felso was not carried out.

Second tracks were built between Kisujszallas-Hajduszoboszlo, Dzajol-Tiszateto, Debrecen-Apafa, and in a part of the Rakosujszasz line, in a total length of 77 km.

We achieved significant results in the area of telecommunications and safety equipment development. Automatic blocking systems were installed in the areas of all directorates. Safety equipment for monitoring switch and track availability was installed at 21 stations, among them in Gyor, Nyiregyhaza, Kecskemet, Vamosgyork and Bekescsaba. Siemens-type blocking devices were installed on 200 km of trunk lines, train signalling equipment on 380 km of mainly feeder lines, and automatic blocking devices on only 40 km.

The construction of experimental light barriers was initiated, and preparations were made for the use of train control equipment. The prototype of the hydraulic track brake of domestic manufacture was installed at the western section of Budapest-Ferencevoros line.

Most of the renewal budget--52 percent--was spent on the modernization of railroad tracks. In 5 years, 2,125 km of tracks were renewed, in many places simultaneously with the modernization of the effected stations. As a result of this important work, the average age of the tracks decreased from 34.4 years in 1960 to 33.3 years in 1965; the length of tracks for over 20 tons per axle increased from 23.1 percent to 39.7 percent and the length of tracks for allowed speeds over 100 km/h increased from 11.4 to 22.1 percent.

There was considerable progress in our repair workshops and traction yards. Thus, the diesel engine shop and locomotive shop of the North Repair Works, as well as the locomotive depot at Budapest-Ferencearos were completed, and the expansion of the diesel locomotive depot in Szekesfehervar was initiated.

Considerable amounts were spent on social, health and cultural investments during the five year plan period. The mess hall at Zahony became a reality, as well as the dressing room and wash room of the Nyiregyhaza engine house, the mess hall of the Szolnok repair shop and the medical clinic in Miskolc. Considerable progress was made in the construction of the MAV hopsital in Szolnok.

In short, we made considerable progress in the area of railroad development during the Second Five-Year Plan, and we made good use of the resources provided by the national economy.

[Jan 80 pp 6-7]

[Text] During the Third Five-Year Plan period (1966-1970) the volume of railroad passenger and freight transport did not keep increasing at the same rate that characterized the previous period. On the contrary, passenger transport decreased in both number of passengers and passenger-miles. This decrease started in 1968; before that, railroad passenger transport had been characterized by a gradual increase. By 1970, the number of passengers transported had decreased by 4.7 percent, as compared to 1965, and passenger-mileage by almost one percent. During the same period, average travel distance increased 4.1 percent, because international passenger traffic grew by 34 percent.

The decrease in the total volume of passenger transport as an effect of the transport policy adopted in 1968 can be explained mainly by the considerable development of domestic highway transport of passengers, by the increase of the number of private cars and, last but not least, by the switching of traffic to highway transportation from the uneconomically operating railroads.

There was a significant change in the indices characterizing the quality of passenger transport. As a result of technical development, the seat occupancy factor improved by almost 5 percent in 5 years, although we are still lagging behind European levels.

Travel speeds of passenger trains had a favorable development, from 33 km/h to 35.4 km/h. Even earlier, there were justified complaints regarding the objectionable [lack of] cleanliness of trains, waiting rooms and passenger areas, as well as the lighting and heating of trains. In many cases, some railroad workers were impolite and even rude to passengers. We could not yet talk about civilized travel at that time. There was also much to be done in the way of improving the quality of passenger transport.

The effect of motorization was also manifest in the area of freight transport. In some cases, transportation policies were incorrectly interpreted. Although redirecting the traffic of low-load, uneconomical lines to the highways was a rational measure, many people associated it to the decrease of the railroad's importance, a tendency assumed world-wide at that time. The fact that the tonnage transported by railroad increased by only 3.7 percent and ton-mileage by only 14.5 percent in 5 years cannot be attributed to incorrect views, but to highway development; nevertheless, it remains a fact. In 1970 MAV transported 116 million tons. Within this figure, domestic transport decreased by 5 percent during the plan period, but export transportation increased by 28.6 percent, import by 40.5 percent and transit by 15.4 percent. Thus, there was a significant change in the composition of freight transport, which signalled the increased participation of our country in the international division of labor.

During this period, the static load of trucks increased by 12 percent in 5 years to 20.8 metric tons. The average load of freight trains, 1,020 metric tons, was almost 10 percent higher than in 1965. Travel speed of freight trains had increased by about 15 percent. However, these technical-economical indices had improved mainly as a result of technical development. Our achievements in areas depending on a better organization of labor and the creation of modern technology were less impressive. Thus, schedule observance of freight trains had worsened by 4 percent during the plan period. Waiting time for engines or of trains almost doubled, and the turnaround time for cars also increased. The number of railroad workers had already decreased from 164 thousand to 150 thousand, and labor shortage occasionally hindered switching yard and dispatch activities.

Law No II of 1966 also defined the tasks of railroad development. Among other things, it mandated that "by the end of the plan period, 75 to 80 percent of all haulage capacity should be diesel or electric driven. The length of electrified lines should increase by almost 400 km.; all trunk lines should be provided with a rail system for a 23 ton load per axle. Modernization of rolling stock, the expansion of the transloading area in Zahony and the station of Szolnok should be continued."

In this plan period, 25 billion forints was spent on the technical development of the railroad, including the replacement of worn-out fixed assets. This amount represented only 6.8 percent of the total development fund of the national economy, against the previous 8.23 percent.

This 25 billion forints were spent mainly on

- modernization of the rolling stock,
- creating a railroad infrastructure for safe modern transportation,
- investments to satisfy the railroad workers' social, labor safety and health needs.

Even so, we were not able to fulfill the mandate of the law in all areas.

10 percent of the freight cars were still over 40 years old. So even in this area, there was much to be done.

Only in regard to passenger cars were we unable to fulfill our rolling stock development plan. Instead of the planned 1,045 units, we only bought 865 due to purchasing difficulties. However, as a result of modernization, the proportion of four-axle cars increased to 81 percent against 61.5 percent in 1970, and the unsafe wooden frame cars were taken out of circulation.

[No 2, Feb 80 pp 8-9]

[Text] As we mentioned before, we exceeded our Fourth Five-Year Rolling stock purchase plan. This is not nearly true in regard to the modernization of our railroad network, where we did not achieve our objectives.

Modernization of railroad tracks fell behind most. The initial plan of 1,770 km was modified in 1973, to 1,270 km, with the measures aimed at reestablishing investment balance, nevertheless, only 1172 km were actually modernized. Thus, the planned development was only realized in part. One of the reasons for the falling behind was the purchase of extra rolling stock indispensable for operation. Another was the price increase of the construction materials affecting the progress of works, as well as the frequent materials shortage.

Finally, the proportion of tracks for 20 tons per axle and over reached only 57 percent against the planned 60 percent. The average age of the tracks dropped "from 33 years to only 30 years" in 5 years. Thirty-three percent of all tracks became suitable for train speeds over 100 km/h.

The development of station and line telecommunications and safety equipment encountered difficulties due to the insufficiency of buildings and the inadequate overhead-line background, the price increase of the equipment, as well as to problems in connection with the changes effected during the manufacture of the safety equipment. Thus, only 724 line and 64 station devices were installed. As a result of the development, 44 percent of the open trunk lines received modern (automatic or semiautomatic) safety equipment (against the 50 percent planned), and signal receiving suspension equipment was installed at 36 percent of the trunk line stations (instead of the planned 75 percent). Four hundred and three automatic gate-lift barriers were installed instead of the planned 643.

We used up 85 percent of the financial budget destined for station development. Most significant during the plan period was the reconstruction of the stations of Szolnok, Debrecen, Veszprem, as well as of Budapest South [Deli] Station, the modernization of the Zahony area, of Hegyeshalom and Rajka stations. The line electrification program was accomplished on 352 km of line against the planned 280 km. Thus, the Budapest-Szob, Rakos-Nagykata-Szolnok, Komarom-Komarom country border, Szajol-Lokoshaza, Hatvan-Ujszasz and Fuzesabony-Eger lines were electrified.

The fulfillment of the social and labor protection investment plans within corporate the investments were adequate. More than twice the planned amount was destined for social welfare investments.

Within the health development, the Budakeszi Pulmonary Rehabilitation Institute and the Nagykanizsa Clinic were completed. The construction of the Budapest Central Clinic, the Heviz Rheumatism Sanatorium, the Balatonfured Cardiological Sanatorium and the Szeged Clinic was initiated.

In final account, we exceeded our rolling stock development, line electrification and corporate investment plans, however, in the area of track
modernization, mafety equipment development and station expansion we closed
the period considerably behind the plan. Passenger transportation performance of the railroad had further diminished in both the number of passungers
(from 386 million to 342 million) and in passenger-miles (from 14.9 billion
to 14.5 billion). Of all modes of travel, international passenger traffic
continued to grow, and the number of those travelling with assigned seats
increased almost fourfold.

Freight tonnage transported by railroad increased considerably. MAV transported 130,8 million metric tons in 1975 against 116 million in 1970, and freight ton-mileage was 23.2 billion, or 122.7 percent of that of 5 years earlier. Export, import and transit freight represented 52 percent of the freight ton-mileage. Thus, the Fourth Five-Year Plan period was characterized by a constantly decreasing passenger transport and an increasing freight transport.

The Present

The Fifth Five-Year Plan (1976-1980) began under these circumstances, and in its last year we can already accurately estimate the results to be expected. We have repeateuly evaluated the tasks and time-proportional fulfillment of the Fifth Five-Year Plan, therefore we will only briefly mention the main indicators. The number of passengers transported by the railroads will further decrease--by an estimated 15 percent--while passengermileage will approach the planned, because international passenger traffic will increase by 35 percent, causing a gradual increase of the distance travelled. Passenger transport has been significantly modernized, mainly by the increased number of comfortable rapid and express trains. As a result of technical development, the volume of seat occupancy has further decreased, and trains have become less crowded. The speed of passenger trains has increased, and passenger information service has improved considerably. However, schedule observance is still unsatisfactory, especially in the case of international trains, and no adequate progress has been made in the area of station and, mainly, car cleanliness.

Our freight transportation forecast also falls behind the plan: the objective for 1980 is 140-146 million metric freight tons and 25,600-27,000 ton-kilometers. On the other hand, the expected performance will

be 136-138 million metric freight tons and 24,900-25,250 million ton-kilometers. The difference can be attributed to the fact that the growth rate of transit traffic, involving long transport distances, has remained significantly below the projections (there is only 21.7 million metric tons of transit freight against the 23-24 million planned for 1980). However, there are other reasons as well for the difference. Partly it is the shipping parties, who often delay loading. Weekend loading and unloading has become especially slow. Due to labor shortages, processing of mixed merchandise has slowed down at the switching yards. The number of hours tracks are shut down has increased due to track modernization work, and reception of the trains offered to neighboring railroads has often proceeded at a slow pace. In many cases, organization and work discipline were also lacking.

Due to the above mentioned deficiencies, shippers have sent their freight by highway, often uneconomically. In the future, a reduction of tensions should be attempted by making better use of the resources and by a better organization of work, since the effect of the energy shortage will only increase the demands on railways by shippers.

The technical development objectives will be fulfilled in general, however, not in all areas.

Haulage capacity of the rolling stock, taking scrapping into account, will increase. As a result, the proportion of modern traction will reach 95.5 percent and 88 percent of the shifting at stations will be made by modern locomotives. Seating capacity of passenger cars will increase 3.5 percent, somewhat less than planned. Even so, almost total scrapping of the obsolete two-axle cars and of a great number of older four-axle cars will be possible. The service conditions will improve with the purchase of sleeping cars and couchettes.

Load capacity of the freight car stock will increase by over 16 percent, more than planned, in 5 years, making a better car usage possible. However, the composition of the freight car stock does not entirely correspond to the transport requirements, since shippers would rather have more two-axle and special cars.

Considerable progress can be expected in the area of containerization as well.

On the Track

One of the greatest achievements of network development is the fulfillment of the planned track modernization. Replacement of tracks is expected on 1,700 kms. As a result of the development, speeds over 100 km/h will be possible on an additional 770 km, and the length of tracks for over 20 ton per axle will increase by 400 km.

We count on a significant financial and physical lag in the area of modernization of stations and railroad centers. The higher than planned price increases are the main reason, but we also lacked capacity, mainly architectural capacity, for execution. The development of the Zahony freight area is progressing at a better-than-planned pace. However, we have an about 1 and 1/2 year delay in the modernization of Budapest-Kelenfold.

Due to financial and capacity problems, the modernization of Kaposvar, Siofok, Murakeresztur and some other stations had to be slowed down.

One of the main tasks of our Sixth Five-Year Plan should be a more significant development of our stations and railroad centers, especially of our switching yards, since these form one of the main bottlenecks of our transport capacity.

Development of safety and telecommunications equipment in general corresponded to the plans during the first 4 years, and we must assure the construction of the 765 km blocking devices projected for the 5 year period. As a result, by the end of 1980, 1,880 km will be equipped with automatic blocking devices.

The scheduled fulfillment of the "lift-gate barrier program" is better than planned. Due to energy rationing subsidies, we exceeded our line electrification program by 130 km. Thus, in addition to the Budapest-Kelebia line inaugurated last year, the electrified Cegled-Kiskunfelegyhaza-Kiskunhalas line will be put into operation this year.

Among enterprise investments, the development of haulage yards and car repair shops is not satisfactory. The performance lag should be compensated for during the Sixth Five-Year Plan, depending on the possibilities. The mechanization of some specialized services, especially track construction, can be accomplished only in part. However, it is encouraging that the social and welfare investment plans, which were given high priority, will be considerably exceeded—by 20 and 35 percent respectively. Health and educational facilities are, in general, being realized according to the plan. With the fulfillment of our 5th 5-year investment program, although our share in the national investment fund has further decreased to 4.8 percent, we have made further progress in the area of technical development of the railroad.

Achievements

Summarizing, we can say that the progress in performance and technical development of the Hungarian railroad since the end of the war until the present has been enormous. We shall only briefly illustrate this fact with some comparisons. We have considered 1950 as a reliable basis, when the number of passengers transported was already 2 and 1/2 times and the freight tonnage almost twice as high as in 1937.

Thus, taking the data of 1950 as a basis, let us compare the performance and technical progress made in 30 years with the help of some indicators. In 1950, we forwarded 181 illion passengers and 39 million metric tons of freight, against the 290 million passengers and 136-138 million (3 and 1/2 times as much) freight tons expected in 1980. Freight ton mileage is almost 5 times the value of 30 years ago. Both average travel and freight transport distances have grown by 33 percent.

Schedule observance of passenger trains is identical to that of 30 years ago, however, travel speed has grown almost 50 percent to 39.7 km/h. Seating capacity is 40 percent greater, and seat occupancy is at about European levels, (45.5 percent). Modern four-axle passenger cars represent 87 percent of the stock, against 16 percent in 1950.

Schedule observance of freight cars has improved about 50 percent, and travel speed by over 25 percent (to 20.4 km/k). Both static load factor and average load are about 88 percent higher than 30 years ago. The load capacity of freight cars is 2 and 1/2 times higher, and 95 percent of the cars are provided with roller bearings. Turnaround time of the cars is about 3.65 days, against 4.5 days in 1950, although it has worsened during the last few years.

Horsepower capacity of the haulage vehicles has increased almost two-fold, and the share of modern modes of traction has increased from 9.6 percent to 95.5 percent, and of shifting from zero to 88 percent.

The proportion of tracks for 20 tons and over is 65 percent against 14 percent, and the length of tracks for over 100 km/h represents 40 percent against 11 percent in 1950. Trunk lines provided with modern safety equipment have increased from 1.5 percent to 66 percent, and the proportion of stations equipped with modern safety devices has increased from 1.9 percent to 73 percent. Electrified line length has increased from 201 km to 1,474 km.

We think that the above figures give a good idea of the progress made in the area of railroad transport during the last 30 years. The number of railroad workers, which reached its peak of 167,000 in 1964, is expected to drop to 140,000 by 1980. However, it is not possible to express in figures the changes that occurred in the conditions of the work processes. They are signalled by the hundreds of social, welfare, labor protection and health investments and residential buildings realized during 30 years. One indication of the improvement of working conditions is the fact that mechanization of track building and maintenance works represents 67 percent against 8 percent in 1950, while loading and unloading are 90 percent mechanized, against 22 percent 30 years ago.

Along with the technical development program, the soul, leader and organizer of the railroad is still the working man; therefore our development policies in the future should also serve the purpose of making work easier and more organized.

CHEMICAL WORKS SPECIALIZED IN PLANT PROTECTIVE AGENTS

Budapest MAGYAR MEZOGAZDASAG in Hungarian No 4, 1980 pp 12-13

[Article by Zoltan Bona: "North Hungary Chemical Works, Sajobabony-- Plant Protecting Agent for the Agriculture"]

[Text] The North Hungary Chemical Works joined the domestic plant-protecting agent production program in 1967. After startup difficulties, the workers of the factory can look back on significant results: 40 percent of the production consists of plant-protecting agents.

The intermediary production unit, finished a few years ago, created the possibility to fulfill the ever-increasing domestic needs and the expansion of exports. Its automated phosgene unit serves to produce a broadscale of plant-protecting agents and drugs' starting materials, including products that could, for a long time, be had only for hard currency. Along with the older Sazin and Satrin (which is compounded by the Budapest Chemical Works), hey started to compound Terbutrin 50 of the mercaptotriazine family. This and propaklor both satisfy all domestic demands and even get exported.

The Program to Eliminate Triazines

The Satecid At-60 WP was produced in the North Hungary Chemical Works in the triazine-elimination program. Its effect on corn is limited to only one growing period. After its use, any cultivated plant can be grown. The product is effective when the farms consider the weed-content and weed-mix of the area. If a large weed content is anticipated then it is useful to apply a higher dose of the proper chemical agent. The water necessary for the spreading is 300-600 liters/hectare, depending on the spraying machine in the field. The basic requirement for the use of the agent is to employ it by the 10th of May at the latest, to provide at least 350 mm. precipitation (natural or irrigated) during the next six months, and there should be no intact chlorotriazine in the soil, left over from previous years. These are a lot of requirements... All of them make the use of Satecid harder because if there is not enough precipitation the results will be uncertain—and many of the farms cannot

irrigate... This is the reason why Satecid did not have the full beneficial effect in the dry spring of last year and the corn fields were weed choked. If, due to poor application or unfavorable weather the effect of Satecide is not evident, another treatment is in order: the Zeapos 10 oil weed-killer, also produced by the North Hungary Chemical Works is to be used. An alternative is the Cartex M-60 WP, which is the small farm's weed-killer. The Satecid 65 WP, however, can be used equally well in large as well as small farms to eradicate weeds from corn, flax, table onion, and potato fields, mainly in combination. It kills especially the annual monocotyledon weed in the germination-emergence phenophase.

The Trikomb 65 WP is a combined weed-killer. It can be used before corn is planted, or at the time of planting, or before treatment--the agent is to be applied while the plant is in the soil in the so-called nail mode.

The Newest Group of Products

The pilot runs of the newest product group were in the chemical works in 1975. The thiolcarbamate family came on the market in the last year. Its most important member is the Alirox 80 EC which almost totally eliminated capitalist-origin imports. The import of Eradicane can also be lowered. The Pet Nitrogen Works started to produce di-n-propylon, one of the significant components of the agent. It has a gas effect and can only be used to kill the weeds in the corn fields before the corn is planted. The dose is 5-7.5 liters/hectare, depending on the soil type. In fields contaminated with Sorghum halopense, 8 liters are needed. The agent has to reach 7-10 cm. depth in the soil in order to kill the majority of the mono- and dicotyledon weeds. The effective spectrum of the product can be expanded with Atrazin-containing agents (Hungazin PK, Aktion PK). To kill seed-germinating dictledon weeds for the duration of one vegetation period, 1-1.4 kg/hectare Atrazin is suggested. Naturally, undercomposed Atrazin, left behind in the soil from last year, has to be considered.

Ordram was replaced by the SH 234-70 EC rice field weed killer. The product is especially effective against the cocks' feet weed family, if 5-6 liters/hectare are applied. The method of application is to use field spreaders before the emergence. When rice is planted superficially, the agent has to be included in the first flooding water, using a dripper. If the rice is planted in the soil, the agent must be dissolved in 4-600 liters of water and applied right after the planting. Following this, the water must stay on the field for 8-10 days for the agent to have its effect.

The greatest task of this year is to produce enough SH 237-75 EC (Cikloat) just as the Alirox 80 WP production gets into high gear. This agent replaces a beet field weed killer, known as Ro-Nee. Thus, less Ro-Nee will have to be imported.

Five Million Dollars Saved

The North Hungarian Chemical Works spends a great deal of money on the further expansion of the product line and on development, along with the already existing and produced chemicals. They shift from dust-form plant-protecting agents to liquid ones. Their advantage is a more accurate dosing, mixing with water, and easier application. They also plan to produce phosphate—ester fungicides. Their aim is to save significant amounts of hard currency. Alirox 80 WP and Cikloat production alone saves \$5 millions' worth of capitalist imports this year. To progress, they entered into many contracts with other factories and institutions. A well-trained pool of exports in their own laboratories also helps the production of many new chemicals.

Picture legends, in order:

Upper left: The annual capacity of the plant-protecting agent compounding unit is 5000 tons.

The newest unit of the factory is the thiol-ester plant, where the active ingredient of the agent that replaces the well-known Eradicane weed-killer. Its start-up is in process now; thus 3000 tons of EPTC--containing agent can be produced this year at Sajobabony.

Photo Caption: [Photo not reproduced] Alpin mill to grind the fungicides and insecticides.

10,101 CSO: 2500

POOR MAINTENANCE OF MACHINES CAUSES PRODUCTION LOSSES

Bucharest SCINTEIA in Romanian 5 Mar 80 pp 1, 5

[Unsigned editorial: "Machines, Too, Must Recover Their Strength"]

[Excerpts] This year, in the national economy as a whole, a production worth about 2.5 million lei is achieved in a single minute. In 1985 the value of a minute will increase 3.8 million lei. These levels can be achieved only under conditions of the utilization of the technical-material base and all machines, equipment and installations at full capacity, with the maximum productivity. It is obvious that any accidental breakdowns and unforeseen interruptions of the technological flow have negative repercussions on production.

This is why it is necessary that firm measures be taken for the best possible organization of maintenance and repair work on the entire supply of equipment and installations belonging to the units. The idea of some management cadres and specialists that they can postpone technical check-ups on equipment for a month, a quarter or even a year in order to execute "current" production tasks more easily is uneconomical and contrary to the principle of worker self-management and self-administration.

The technical means available to us, created by a great investment effort on the part of the state, cannot be used unwisely, violating the most elementary norms of maintenance and repair. Experience has proven that sooner or later the results are felt in production. The situation in the Ministry of the Chemical Industry is an example. As a result of the poor functioning of installations, production suffered a 5 to 6 percent loss. The situation also exists in other sections of activity. The communique on the fulfillment of the single national socioeconomic development plan for 1979 shows that, in some products, the provisions were not achieved completely as a result, in particular, of unjustified interruptions in the operations of the installations, of delays in the commissioning of production capacities, of the failure to achieve the planned parameters or the incomplete utilization of equipment in some units.

Unfortunately, there is no shortage of examples. For example, in a number of large units, with a strong, highly technical material base, such as the chemical combines in Craiova and Tirgu Mures, the heavy machine enterprise

in Bucharest, the chemical fertilizer combine in Turnu Magurele, the Copsa Mica "Carbosin" enterprise, etc., repairs and technical check-ups of equipment worth millions of lei are unjustifiably postponed from one year to another. In addition to the fact that some equipment is not included in the annual repair plans, the schedules drawn up are not observed. "We have an urgent order and we cannot shut down the machine," they say. "Besides, the installation is still good and still operating"—they try to justify their stand.

The equipment still goes because the majority of fixed assets presently existing in our economy were put into use in the past 10 years. They are relatively new and have a high technical potential. It is completely abnormal to believe that check-ups and repairs should be done only when machines have stopped running. The maintenance of equipment has a preventive aspect, aiming at the prevention of accidental breakdowns, the elimination of defects and the improvement of technical performance. Management cadres in the economy and specialists must not forget that the current technical base must be used for many more years. Also, each worker, master worker and engineer has the obligation of caring for and repairing machinery and equipment in order to assure the normal progress of production.

Just as damaging is the tendency of some management cadres in the ministries, economic centrals and enterprises to relegate to last place or even to forego the development of maintenance and repair sectors as the production capacities in some units are extended. For example, in the machine building enterprise in Resita and in the "Steagul Rosu" plant in Brasov, the capacity of the repair sectors has remained the same for years despite the fact that the respective units have developed considerably recently. These are only two examples but there are many such cases. Do they think that someone will come from outside, from some other unit to execute all the necessary check-ups and repairs? Such a viewpoint has always proven to be disastrous.

Figures show that about two-thirds of the total repairs executed are current repairs and technical check-ups and one-third are major overhauls. Since the operations in the first category are carried out by units with fixed assets, these units have the principal responsibility for observing technical norms for maintenance and repairs. But even in regard to the execution of major overhauls, the units with fixed assets have particularly important functions. The annual cost of manpower and material used in the execution of major repairs of equipment, machines and installations in our economy is 13 billion lei. Of this sum, about 5 billion lei represents the value of major overhauls of means of transportation, agricultural tractors, petroleum engines, construction of equipment, etc. In addition, a network of units in which capital repairs are made has been organized in agriculture, transportation, the petroleum industry and the construction industry. Of course, there is room for improvement of this activity but it has begun and some experience has been accumulated.

In regard to the capital repairs of machine tools, which occupy an important role in all these operations, experience has proven that there their execution is more efficient and can be better organized in specialized units. In the case of units in the Ministry of the Machine Building Industry, it is necessary to establish units specializing in the execution of capital repairs. But the Ministry of the Machine Building Industry which has the largest number of machine tools has not organized a network of units for the execution of major repairs.

The principal responsibility for the maintenance and repair of fixed assets lies with the ministries, centrals and units which have the machines, equipment and installations. A number of obligations result from this. First of all, it is necessary to keep a strict record of the hours of operation of the equipment for the purpose of scheduling necessary maintenance work. In the chemical fertilizer combine in Turnu Magurele, for example, capital repairs on some equipment sometimes overlaps technical check-ups or current repairs, which means that the planning of the operations has not been carried out on the bases of the operating schedule and cycles. In the second place, the repair plan should include all the equipment which is in use. The failure to include some equipment in the repair plans leads to the creation of abnormal situations; even if the plans are being fulfilled, it does not mean that all the necessary work has been done. In the third place, all necessary conditions for the timely execution of check-ups and repairs, under the best possible conditions, should be assured.

ENERGY DEVELOPMENT CONFERENCE NOTES ENERGY NEEDS TO 1985

Belgrade PRIVREDNI PREGLED in Serbo-Croatian 21 Mar 80 p 12

[Excerpts] At the conference held in Opatija on energy development in Yugoslavia in the next medium-term period everyone agreed that the continued tempo [of production] and structure of the fuel and power industries must be based on the predominant role of domestic energy potential and increased saving and rational use of energy. Consideration was given, above all, to coal, water energy potential, oil, oil shale, and other new forms of energy. Differing opinions exist especially in regard to the consumption of oil and the production and consumption of coal in the next medium-term period. Faced with the fact that expenditures for importing oil and oil derivatives account for 51 percent of the value of all exports of goods and services in 1980, the authorized organs are disposed toward strictly reducing the growth of consumption and the consistently rational use of oil. Accordingly, the average increase in oil consumption in future should be only 3.5 percent (a very large change from the 8.4 percent noted in the current medium-term plan). In 1985 primary energy consumption should increase 1.42 times compared to 1980, and would grow at an average [annual] rate of 7.4 percent compared to the 8.4 percent in the current medium-term plan. The share of domestic energy in total primary energy would increase 2 percent (from 59 percent in 1980 to 61 percent in 1985). This would be a very large change, especially in the consumption of oil, which would largely be turned into petrochemical raw materials. The oil industry and many OURs (organizations of associated work) which continue to plan development of their capacities on the basis of heating oil consider such a change too severe and point out the consequences of this on total development. Coal should be the main raw material to be substituted for imported energy. But producers believe that the share of coal can be increased in the next medium-term period only if adequate development funds are provided.

KOSOVO ELECTRIC POWER MERGER APPROVED

Workers Vote for Merger

Belgrade PRIVREDNI PREGLED in Serbo-Croatian 13 Mar 80 p 1

[Excerpt] At a meeting on 11 March the workers of the "Kosovo" Combine in Obilic voted in favor of merging into the "Elektroprivreda Kosova" complex organization of associated work. At the meeting on 11 March 95 percent of the 9,700 workers in this largest work collective in the province voted to form this united organization which will include two organizations to be built in addition to the existing lignite surface mines with an annual capacity of 9.5 million tons and a thermoelectric generating capacity of 800 megawatts. The organizations to be built are the "Kosovo B" thermoelectric power plant of 678 megawatts and the "Gazivode" hydroelectric power plant of 34 megawatts. Kosovo's electric power industry now accounts for 7.4 percent of the capacities of the entire country and 19.5 percent of those of Serbia.

Self-Management Agreement Signed

Belgrade PRIVREDNI PREGLED in Serbo-Croatian 18 Mar 80 p 1

[Text] A self-management agreement was signed on 17 March 1980 at the "Kosovo" REMHK (mining-energy-metallurgical chemical combine) in Obilic on forming the SOUR "Elektroprivreda Kosova" (Electric Power Industry of Kosovo). Formation of a unified organization for the electric power industry of the province (in which Kosovo producers of coal and electric power, as well as the "Elektrokosovo" work organization for transmitting and distributing electric power, shall pool work and resources) will contribute toward strengthening the material base and fuller use of production capacities. Nazmi Mustafa, president of the Provincial Economic Chamber, stressed that the formation of this SOUR will stimulate the development of self-management socioeconomic relations.

BRIEFS

PEUGEOT IN PRISTINA--On 13 March representatives of the "Energoprojekt" enterprise in Belgrade and the SOUR [complex organization of associated work] of the united metal industry signed an agreement on working out a general design for building the first stage of the Peugeot automobile plant in Pristina. The "Energoprojekt" agreed to work out the main design in 6 months so that in the course of this year construction of the factory can begin where 10,000 cars will be produced annually in the first stage alone. Simultaneously with this work there is also a design to construct the "Mehanika" factory which will produce certain parts for the Peugeot car. During 1982 it is expected that the first Peugeot "305" and "504" cars will be produced in the Pristina plant. [Text] [Belgrade BORBA in Serbo-Croatian 14 Mar 80 p 16]

AGREEMENTS ON KOSOVO DEVELOPMENT -- This year all republics and the province of Vojvodina will take upon themselves the obligation to build a specific number of economic facilities in Kosovo to hasten the development of this province. Measures will also be taken to create the conditions and stimulate OURs and other self-management organizations and communities so that each republic and the Vojvodina will build at least one economic project in this province. This will be done, above all, by pooling work and resources and everything will be arranged through social agreement between republics and provinces, the outline of which will be prepared and examined by the authorized organs of republics and provinces and the FEC [Federal Executive Council]. In the course of the year a longer-term agreement on formulating the entire program to accelerate Kosovo's development after 1980 will be added to the agreement on building economic facilities in Kosovo. This is expected to be signed the end of May. [Excerpt] [Belgrade BORBA in Serbo-Croatian 18 Mar 80 p 1]

COAL NEEDS—-According to republic and provincial balance sheets, Yugo-slavia will have a shortage of 2.3 million tons of coal this year (production of 52.2 million tons is planned, as well as exports of 500,000 tons, and a consumption of 54 million tons). This shortage can climb to 3 million tons if the forecast submitted by mines (that they will produce about 51.5 million tons) comes true. Only

thermoelectric power plants are expected to be adequately supplied with coal. Imports of 800,000 tons of brown coal is expected this year; up to now requests for importing 315,000 tons have been submitted. Industry and transportation have a shortage of about 350,000 tons of mostly hard coal. On the world market there is a coal shortage and prices are very high. Last year a little more than one-half of the amounts approved for import were imported (about 425,000 tons were approved, 150,000 tons of which were for mass consumers). Hard coal production is declining (less was produced in 1979 than in 1978); for the first time since 1966 the production of brown coal increased (in 1979 over 1978) but it was still below the 1966 production of 10.5 million tons. Only lignite production is steadily increasing but it is largely used in thermoelectric power plants, while the possibility of producing dried lignite has not yet been adequately exploited. [Excerpt] [Belgrade EKONOMSKA POLITIKA in Serbo-Croatian 25 Feb 80 p 15]

JAT TRANSPORT--In 1979 JAT [Yugoslav Air Transport] carried almost 4 million passengers, namely, 3,972,818, and over 30,000 tons of goods. This was a 10-percent increase in passengers and a 13-percent increase in air freight over 1978. JAT aircraft completed 72,000 hours of flying, 19 percent of which was charter transportation. Over 3.5 million passengers were carried in regular transport, or 10 percent more than in 1978. Of this number almost 2.5 million passengers and 14,000 tons of goods were transported on domestic routes. Over 1 million passengers were transported on Euro-Mediterranean routes, and 80,000 (46 percent more than in 1978) were transported on long-distance routes. [Excerpt] [Belgrade EKONOMSKA POLITIKA in Serbo-Croatian 25 Feb 80 p 38]

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